

Manufacturers Record

Exponent of America



\$6.50 per Year.
Single Copy, 20 Cents.

Baltimore, Md.
NOVEMBER 17, 1921

STANDING ON HOLY GROUND.

When President Harding closed his speech at the grave of the unknown soldier on Armistice Day with the Lord's Prayer, and the Disarmament Conference was opened by prayer, this nation gave to the world an expression of its reliance upon Almighty God in marked contrast with the Versailles Peace Conference, where there was no recognition whatever of God. An air of profound religious sentiment brooded over Washington during Armistice Day, which touched every heart. Men seemed to realize that they stood on holy ground. It seemed as though earth was crammed with Heaven and every bush was afire with God, as Mrs. Browning sang of old. The message that went forth to every corner of the world, the message that was read or heard by every intelligent man and woman to earth's remotest bounds, was a message that thrilled all mankind with a new and deeper realization of the meaning of Christianity as the only source through which there can come peace and righteousness to a sin and war-cursed world.

The greatest sermon ever preached since Calvary, the most widely read message to mankind to trust in God that ever touched so many hearts since the "morning stars sang together," was the spirit of Armistice Day and of the opening of the Conference.

Had President Harding done nothing else in all his life than to close his address with the Lord's Prayer and to have the Conference opened with prayer, he would have rendered humanity a service of inestimable value, and hastened the coming of the day when the drum beat shall cease, and when war shall be no more, through a worldwide acceptance of Him whose miraculous birth was heralded by the song of the angelic chorus to the enraptured shepherds on Judea's plain—

"Glory to God in the highest,
On earth peace to men of good will."

If this spirit shall prevail throughout the Conference then indeed may the world see the fulfillment of the prophet's vision when he said:—

"How beautiful upon the mountains are the feet of him that bringeth good tidings, that publisheth peace; that bringeth good tidings of good, that publisheth salvation; that saith unto Zion, Thy God reigneth!

"Thy watchman shall lift up the voice; with the voice together shall they sing: for they shall see eye to eye, when the Lord shall bring again Zion.

"Break forth into joy, sing together, ye waste places of Jerusalem: for the Lord hath comforted his people, he hath redeemed Jerusalem.

"The Lord hath made bare his holy arm in the eyes of all the nations; and all the ends of the earth shall see the salvation of our God."



Where is our Coal Supply?

HOW many captains of industry are going to make this query when the wheels of production begin to grind in 1922?

Have you realized that next Spring this country will face a serious coal shortage and unless you are prepared you will have to shut down?

Right now is the time to investigate "RALECO" Service. Make satisfactory arrangements that your fuel supply will be assured in quality, delivery and price.

*An inquiry to our sales department
will bring immediate information.*

RALEIGH SMOKELESS FUEL CO.



Beckley, West Virginia

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Treated With Lapidolith the
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has made concrete floors dustproof and wearproof for years. 200,000,000 square feet of concrete floors have been lapidolized.

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Thus, it saves millions of dollars formerly lost by replacements and repairs, and by injury and delays, due to concrete dust, which ruins merchandise and machinery.

Lapidolith is the standard specification for all kinds of concrete floors, including basement, cellar and garage floors, also for cement walks and tanks.

Lapidolith has been the standard for ten years, and is the original concrete hardener.

Write for testimonials from every part of the country and from every line.

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Sonneborn Products***Cemcoat***

the durable Mill White—Washable, fire-resisting, and of exceptional covering capacity. Gloss, Flat and Eggshell. All colors.

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FOR WOODEN FLOORS

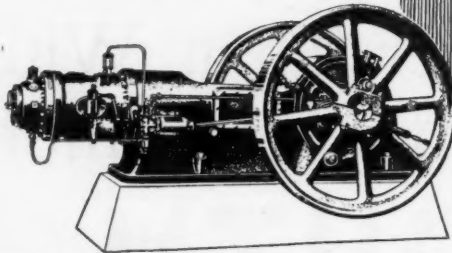
the modern wood preservative gives new life to old or new wooden floors.

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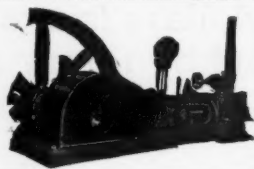
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Machinery



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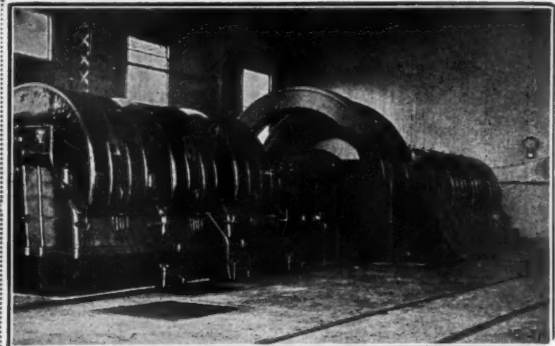


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& Cement Machinery, Etc.

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TANKS TOWERS SMOKE STACKS**

If you are in the market for the above, get our prices. We are Southern Manufacturers, and not only manufacture, but guarantee our products. We want you to take advantage of our 50 years' experience.

Write us for further information
and become a satisfied customer.

SCHOFIELD'S IRON WORKS

Dept. H

MACON, GA.

Meeting Emergencies

To be able to meet an emergency—to be able to operate in spite of the failure of some essential auxiliary—is often of more value in dollars and cents than unusual economy in daily operation.

But when perfection of design secures both these desirables the ultimate has been reached. For instance, loss of vacuum does not necessitate a shut down where Nordberg-Todd Uniflow Poppet Valve Engines are used. Movement of a simple lever permits operation with any vacuum or any back-pressure. Their exceptional economy of operation is due to the fundamental principle of the uniflow engine.

Nordberg-Todd Uniflow Poppet Valve Engines operate with lower steam consumption over wider variations in load than any other form of steam prime mover.

If you wish to know more about this economical engine, write.

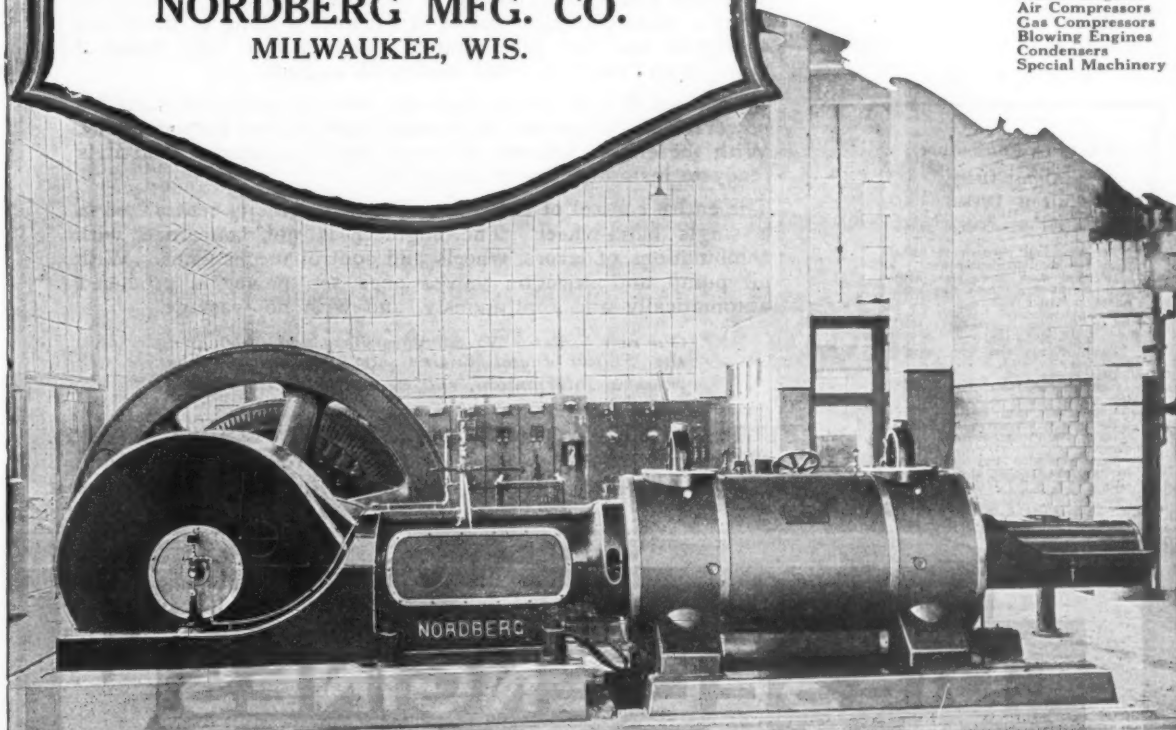
NORDBERG MFG. CO.
MILWAUKEE, WIS.

NORDBERG

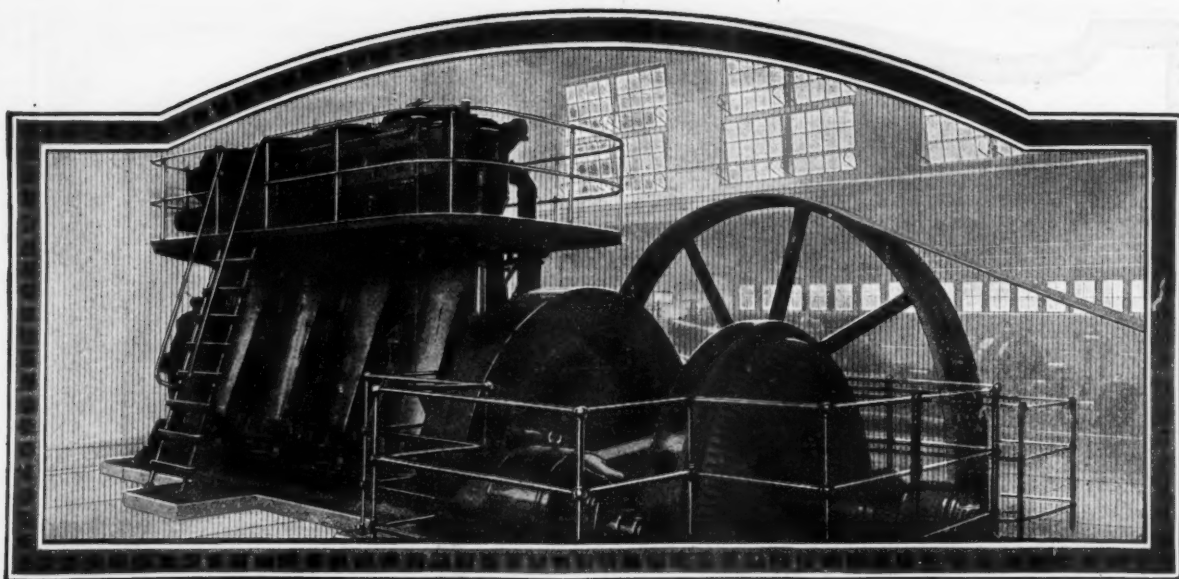


MACHINERY

Uniflow Poppet-Valve Engines
Corliss Engines
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Air Compressors
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Special Machinery



NORDBERG-TODD UNIFLOW POPPET VALVE ENGINES



Some Power Plant Expenses You Can Turn Into Profits

Compute the cost of firing up and getting your power plant under way.

You save exactly that amount with a Fulton Diesel Oil Engine. From a mass of lifeless metal, it becomes a thing of throbbing energy in less than one minute. Records have been made of going from "cold" to a full load in 35 seconds.

What does it cost you in fuel and labor to maintain stand-by power? That's another big saving made by the Fulton Diesel. With the engine stopped, no more fuel is consumed, and it is ready to instantly resume operation.

The entire control of the Fulton Diesel Engine is centralized in a single hand-wheel. The engineer is not concerned with combinations of levers, wheels and control mechanisms. With oil pump and injection valves once set, power is produced automatically and continuously, and with no wastage.

Our new bulletin No. 801 describing and illustrating the Fulton Diesel Engine and containing other valuable information, will be mailed upon request.

FULTON IRON WORKS COMPANY, ST. LOUIS, U. S. A.

Successful Engine Builders for 69 Years.

Branch Offices: New York - 82 Wall St., Cuba, Havana - 401-402 Banco Nacional.

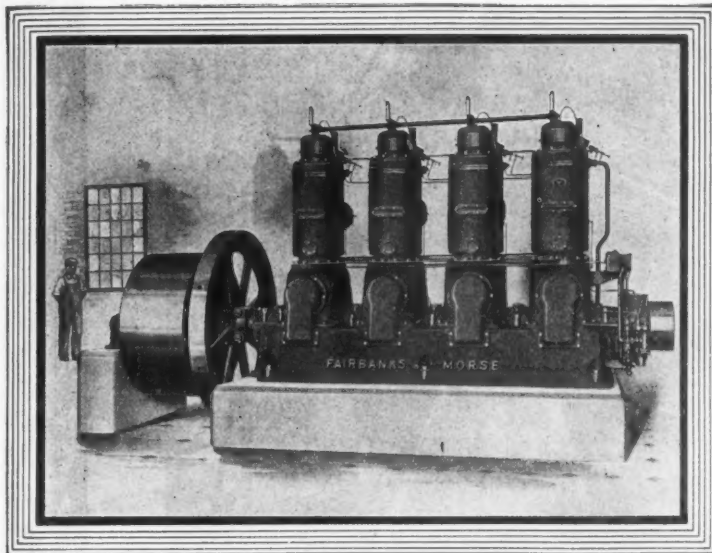
Facts to Remember About the Fulton Diesel

A compact self-contained power plant.
For all power purposes in units from 150 to 1000 horsepower.
In most cases shows clear savings of two-thirds over fuel consumption under boilers.
Thermal efficiency:
Steam—15% maximum.
Diesel—36% net.
Fuel consumption in direct proportion to load.
Uses cheap fuel.
Constant readiness for operation without stand-by losses.
Quick and easy starting.
Economy independent of size.
Long life with constant efficiency.
Easily operated and maintained by any competent steam engineer.

FULTON

DIESEL ENGINES

FAIRBANKS-MORSE "Y" OIL ENGINES



—steady, reliable power
from low grade fuel oils.

Simple in construction — practically automatic in operation and regulation — no valves, carburetors, batteries, mixers, igniters, timers, switches, magnetos or spark plugs.

Special quick starting device makes full power available in from three to five minutes; ample positive lubrication; sensitive governor. No hot bulb or water injection. Sizes 10 hp. to 300 hp.



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Torches and Burner Outfits for general machine shop heating and repair work, such as heating for Straightening, Expanding, Shrinking, Babbitt melting, etc.

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Preheaters—various capacities for work of all sizes.

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Gas Combination Burners

Burns either gas or oil separately or together; simple of installation, operation and construction.

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"Walls" Everlasting Oilers

of Brazed Steel, specially designed for Strength. Every joint brazed with Hard Solder. Red Heat or the roughest usage will not cause a leak.

Our Specialties Include

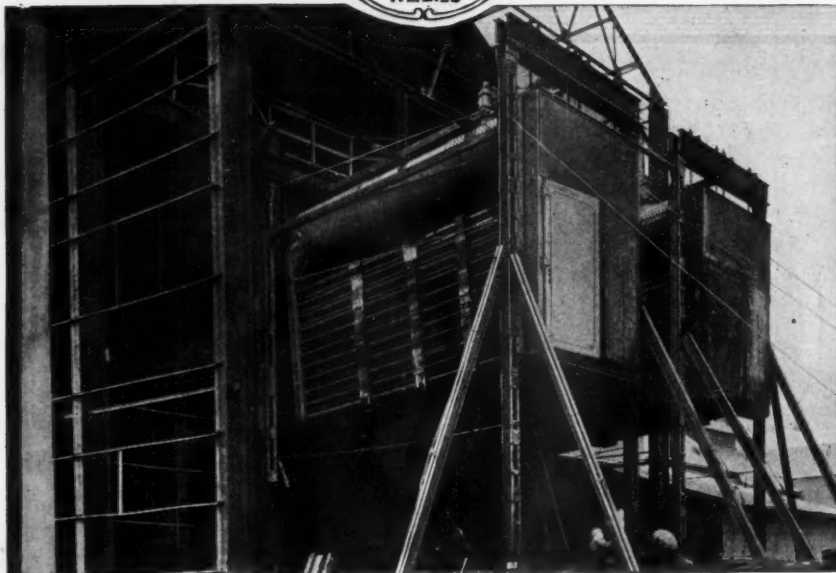
Oil Caps	Bells
Fillers	Gongs
Torches	Belt Fasteners
Hand Lamps	Ice Cans, Etc.

These goods are warranted of the greatest possible durability, and the best obtainable quality.

Ask for Catalogue

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Allegheny, Pa.





A Heine Waste-Heat Boiler in process of installation

Heine Waste-Heat Boilers

can be profitably used in such plants as employ any of the following furnaces in industrial operations:

- Open-Hearth Steel Furnaces
- Rotary Cement Kilns
- Puddling Furnaces
- Malleable-Iron Melting Furnaces
- Coal-Gas Benches
- Oil Stills
- Glass-Melting Furnaces
- Soda-Ash Furnaces
- Zinc, Copper, Nickel, etc. Refining Furnaces
- Miscellaneous Heating Furnaces

Wherever conditions permit the installation of Heine Waste-Heat Boilers it is possible to

increase substantially the thermal efficiency of the primary furnace. In fact, the economy effected by the utilization of the waste heat from the primary furnace for steam generation is often sufficient to pay the cost of the installation in a few years.

Inasmuch as there are many modifying conditions affecting the proper design of boilers of this type, such as raw materials, fuel, operating characteristics of the primary furnace, etc., each installation requires individual study to determine the feasibility of the plan and the best methods of application. The Heine Boiler Company will be glad to answer in detail any inquiries of this nature.

Heine Boiler Company, St. Louis, U. S. A.

New York Boston Chicago Cincinnati New Orleans Philadelphia Pittsburgh Detroit Cleveland

Also Agencies in many other cities

2016

HEINE LARGE UNIT BOILERS

How do your boiler room costs affect the prices your salesmen quote?

DO high operating costs make it difficult for you to meet competitors' prices? Do your salesmen complain of too high a list?

No phase of manufacturing has a wider influence on operating costs than the boiler room, and the degree of efficiency with which it is run. Waste in the boiler room, usually due more to antiquated or inadequate equipment than to inefficient labor, affects, to a surprising extent, every other manufacturing cost. Conversely, savings effected here are reflected through the whole plant.

There is no department where bigger economies can be obtained with less investment for equipment than in the boiler room.

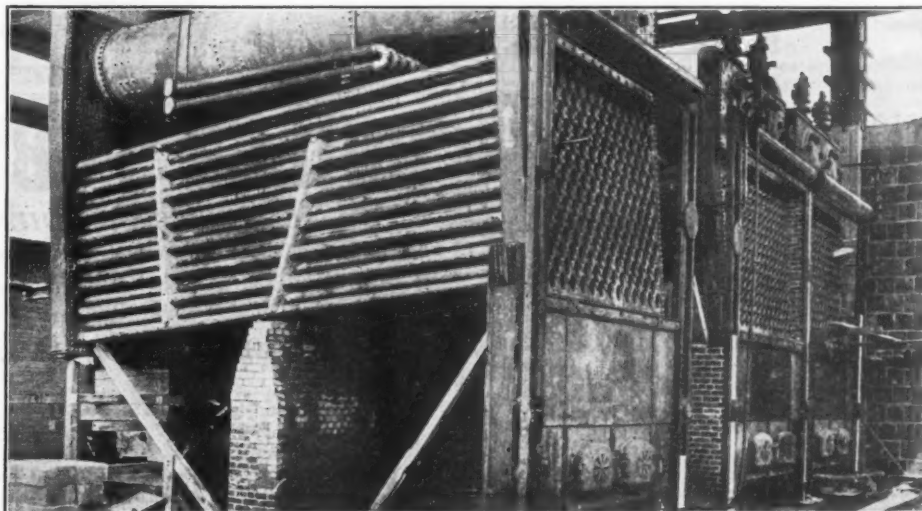
Are *your* boilers economical? Do they produce all the power you need, dependably, safely, with the lowest possible operation and maintenance costs?

Edge Moor Water Tube Boilers are built to render the utmost in service. The purchase price is soon absorbed by extended economies in fuel and maintenance.

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New York — Chicago — Boston — Pittsburgh — Charlotte — St. Paul



Three 409 H. P. Edge Moor Boilers in course of erection at the Maverick Mills, East Boston, Mass. Lockwood, Greene & Co., Consulting Engineers; Robert Burgess, Mechanical Engineer.

EDGE MOOR Water Tube BOILERS



FOR INCREASED FUEL ECONOMY

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of continuing reliability**

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Shafts, Pulleys, Hangers, Couplings, Etc.

**Locomotive Injectors
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Stand Pipe, Self-supporting Stacks, Tanks, Towers, all kinds
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FOR ALL TYPES OF BOILERS

Especially bent tubes for vertical water-tube boilers

Also carry a large stock of straight tubes.
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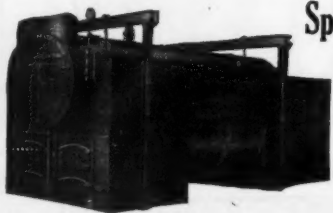
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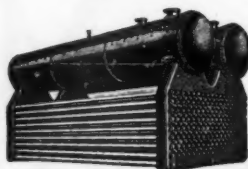
Special Plate Work



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BOILERS OF ALL TYPES WITH OR WITHOUT STEEL CASINGS



**TANKS and
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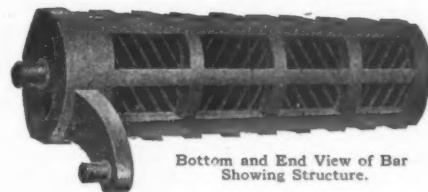
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Clean fires with closed doors

No doubt you have often thought how a great saving might be effected if your fire doors did not have to be opened for cleaning periods.

Thomas Elliptical Wiggling, Shaking, Dumping Grate Bars have accomplished this by keeping the fires clean at *all* times. The saving in heat, time and fuel gained by the use of Thomas Grate Bars is sufficient to pay for them in a short time, after that they are clear profit.

THOMAS GRATE BAR CO.
BIRMINGHAM ALABAMA



Bottom and End View of Bar
Showing Structure.

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CARY SPRING WORKS, Inc., 240-246 W. 29th St.
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Double-Shift Rocking Grates

Have 10% more air space than any other grate made. Designed for hard or soft coal.

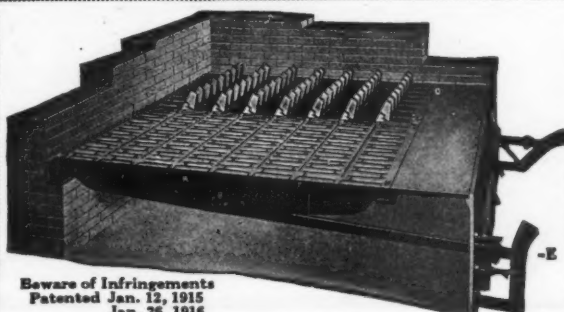
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SPRINGS

that are

RELIABLE

RAYMOND MFG. CO., Ltd., CORRY, PA.



Beware of Infringements
Patented Jan. 12, 1915
Jan. 26, 1916

The Armstrong Grate

Is an Ash Sifter, a Vibrating Grate, a Shaking Grate and a Dumping Grate

It has a new improved shaking mechanism that is fool-proof. By lifting bar "E" the grates will dump clinkers 6 inches thick. When bar "E" is down, it is a sifter and vibrating grate, the grate bar fingers opening just enough to let the fine ashes through and push clinkers loose; the fingers raise and lower 4 inches without increasing the grate opening. Hence there can be no loss of coal when shaking. Its wonderful durability is explained by the fact that 90 per cent. of the weight is in the grate where it belongs—not in useless framework. Write for full details and prices.

We will put in our grate on trial with any Shaking Grate on the Market, and do it at Our Expense.

Armstrong Manufacturing Company, Springfield, Ohio
Dept. M

4000 Tons a Year —Saved

BURNING No. 3 anthracite buckwheat under four 200 H. P. horizontal return tubular boilers, these four McClave Semi-Automatic Stokers have been saving their owners four thousand tons of coal a year since 1917.

In spite of the fact that a fine size of fuel is used, virtually no unburned coal sifts through the grates, and the calorific value of 11,653 B. T. U.'s is so well utilized that the four 200 H. P. boilers are operated continually at 200% of rating, with a saving of \$44 per day of twenty-four hours over the operating cost of the previous installation of hand fired grates.

In conjunction with these "M-A" type stokers, McClave Argand Steam Blowers are used to take care of the draft requirements through the thick bed of anthracite screenings.

McClave Combustion Systems are designed to reduce operating costs in the boiler room and to produce steam at a lower cost.

If you are interested in developing worth-while plant economies, write for more information.

McCLAVE-BROOKS COMPANY

Makers of the famous McClave Grates since 1883
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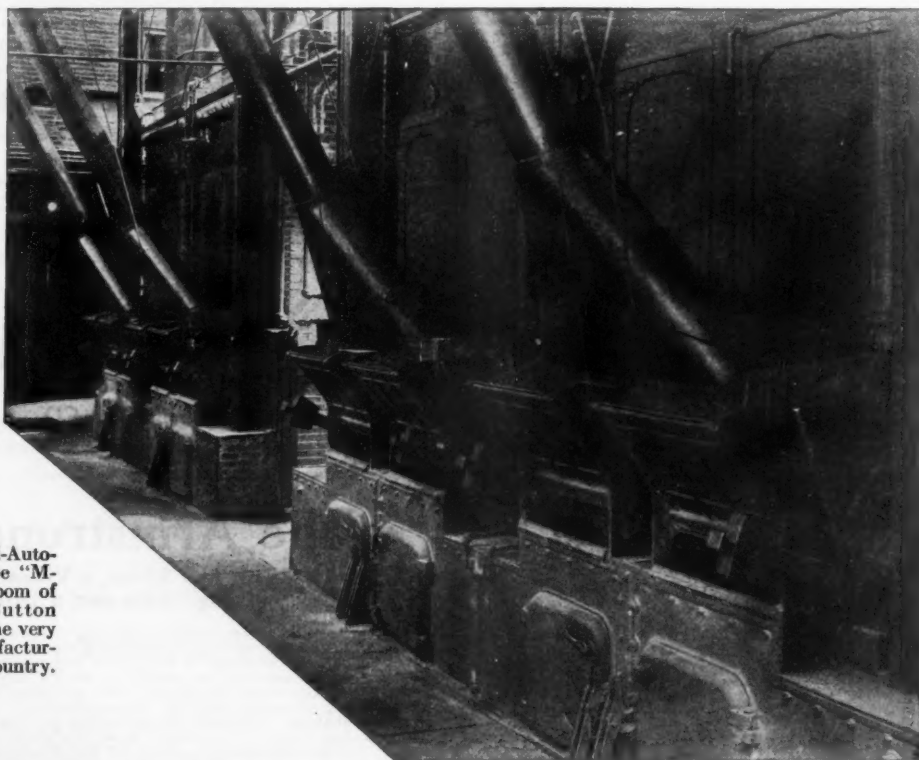
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W. H. Goodrich, Representative

Dallas: 705 Elm Street
D. G. Counts, Representative

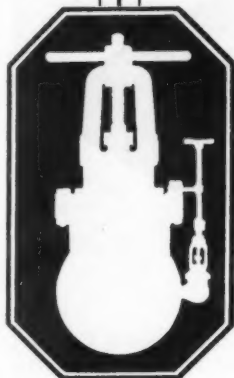
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Four McClave Semi-Automatic Stokers, Type "M-A", in the boiler room of the Scranton Button Company, one of the very large button manufacturing concerns in the country.

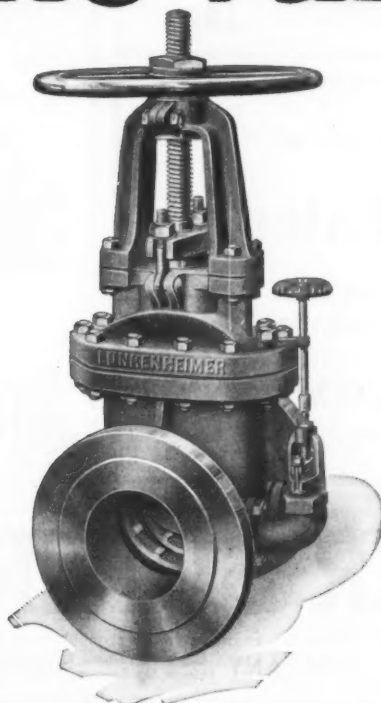
McClave COMBUSTION SYSTEMS *for greater economy*



LUNKENHEIMER

"Victor"

Gate Valves



Dependable performance is the service record of LUNKENHEIMER "VICTOR" Gate Valves. The "VICTOR" solid wedge disc, double-faced and guided in its travel, is the most practical design of Gate Valve construction. It eliminates "dragging" across the seating faces and the consequent wear prevalent in valves employing loose parts.

Highest quality materials, coupled with the LUNKENHEIMER method of manufacture; bearings bronze bushed to minimize wear; the indestructible gasket between the bonnet and body flanges, and all parts, including the seatings renewable, all tend to enhance their value and insure longevity.

Made of Iron, Bronze mounted, in both Inside Screw Stationary Stem and Outside Screw Rising Stem types, in four weights for pressures ranging from 100 to 250 pounds. Also in Quick-opening Sliding Stem type for pressures from 125 to 50 pounds, depending on the size.

"VICTOR" Gate Valves are also made in Bronze for pressures up to 250 pounds and in Cast Steel for pressures up to 350 pounds and temperatures to 800° F.

Specify LUNKENHEIMER "VICTOR" GATE VALVES and insist on their installation. Distributors of LUNKENHEIMER Products situated in every commercial center.

THE LUNKENHEIMER CO.
— "QUALITY" —

LARGEST MANUFACTURERS OF
HIGH GRADE ENGINEERING SPECIALTIES
IN THE WORLD

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OF CATALOG BEARS
No 58
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Stop the Leaks

In the construction of Dart Unions, the spherically constructed Bronze to Bronze seats eliminate the possibility of a leak. Extra heavy iron ends add strength and durability. Every Union is tested, and we guarantee to replace any defective union returned to us with two perfect ones.

We will mail you a free sample on request.

A shape and size to fit every need. Flanges, L's, T's, etc.



DART UNIONS

E. M. DART MFG. CO., Providence, R. I.
The Fairbanks Co., Sales Agent.
Dart Union Co., Ltd., Toronto, Canada.

We keep others in

Hot Water

Submit your water-heating problems to

THE SIMS COMPANY

ERIE, PA.

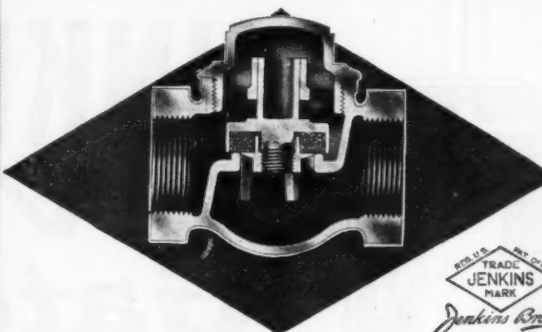


Figure 117

Jenkins Brass Horizontal Check Valve Screwed, standard pattern for 150 pounds working pressure. Also made flanged. Fitted with Jenkins Disc which gives valve practically unlimited life.

At all supply houses.

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New York Boston Philadelphia Chicago
Montreal London Havana
FACTORIES: Bridgeport, Conn.; Elizabeth, N. J.;
Montreal, Canada




Jenkins Valves
SINCE 1864

FOSTER SUPERHEATERS

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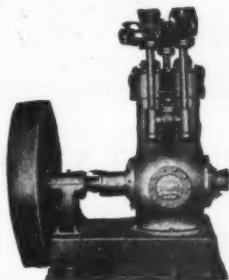
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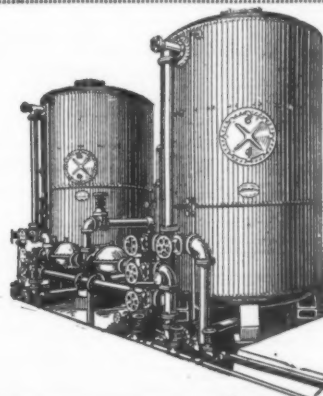
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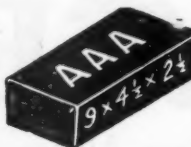
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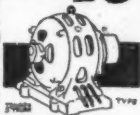
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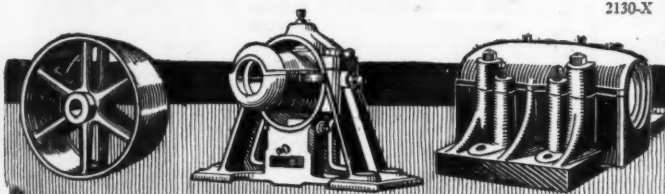
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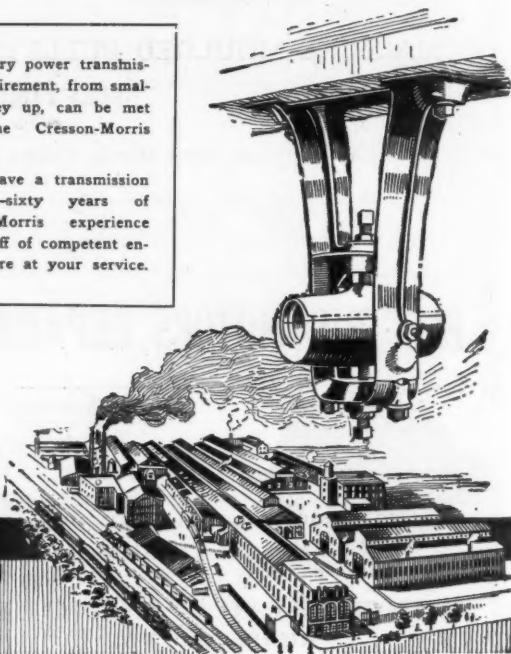
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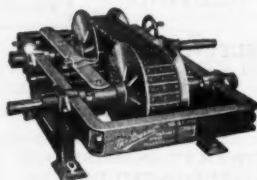


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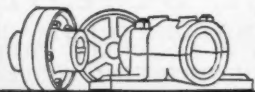
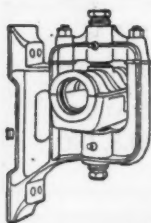
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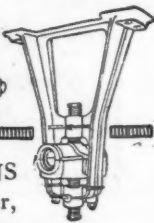
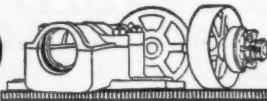
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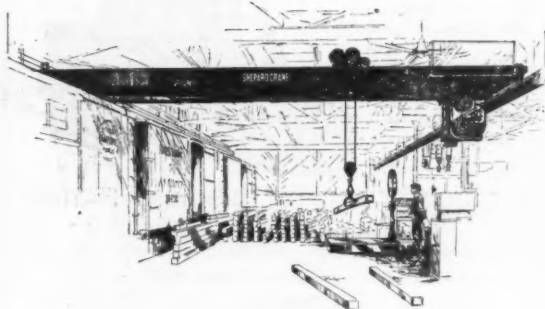
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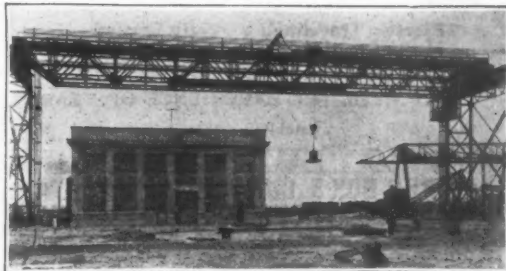
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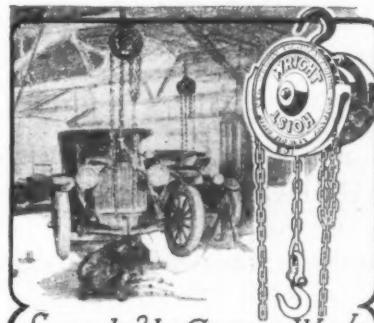
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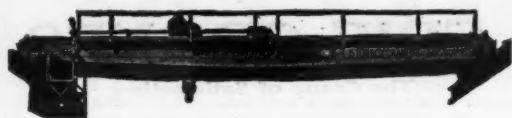
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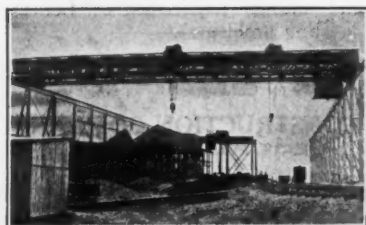
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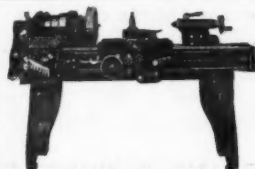
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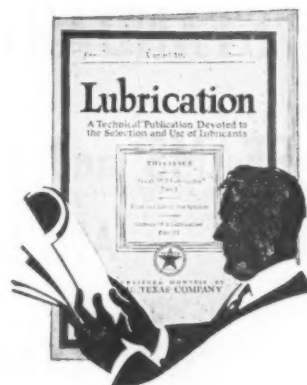
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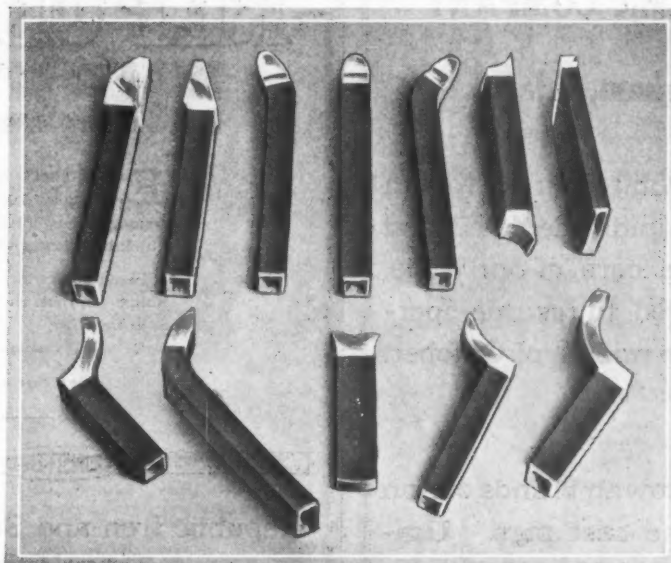
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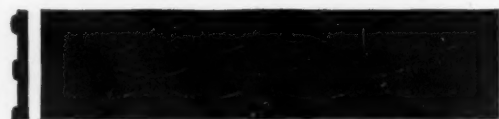
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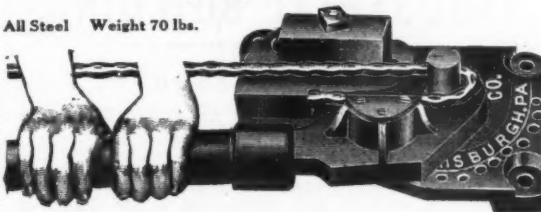
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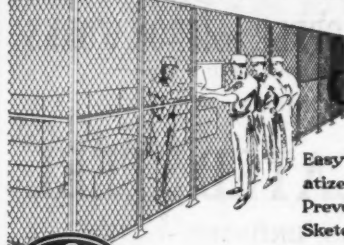
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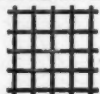
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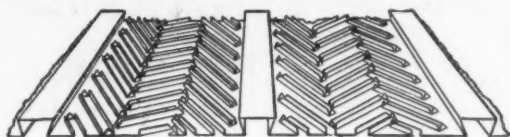
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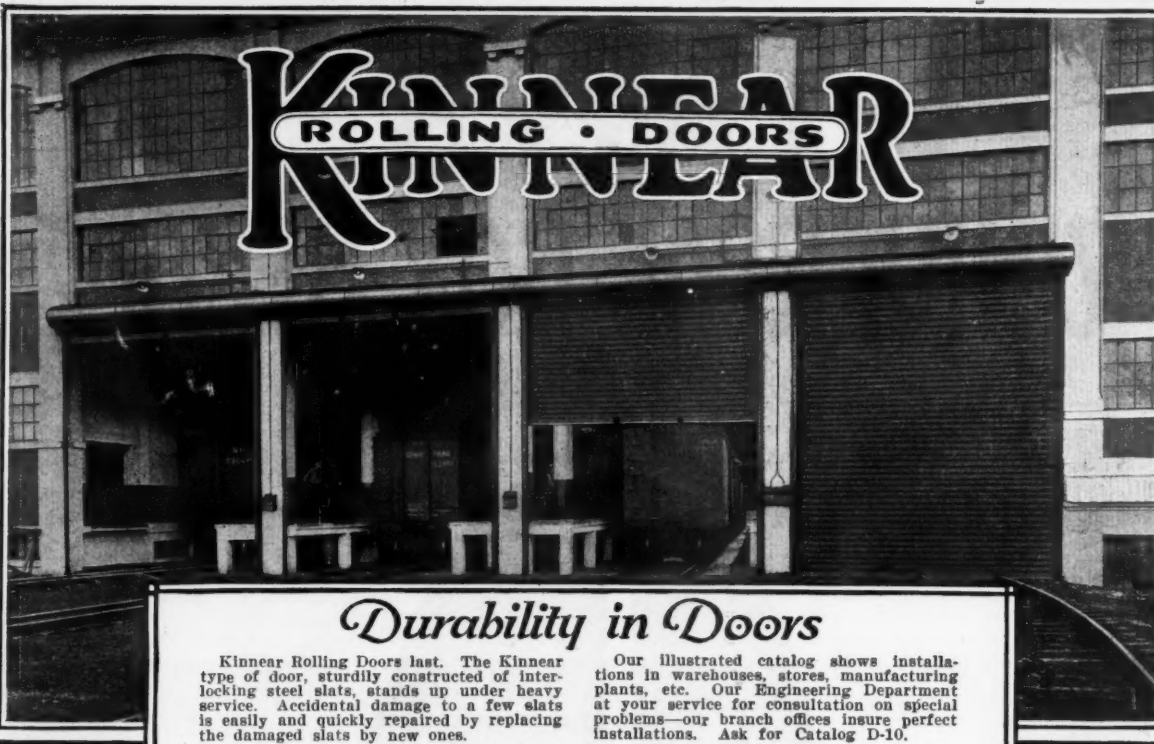
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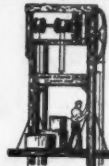
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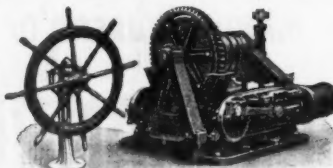
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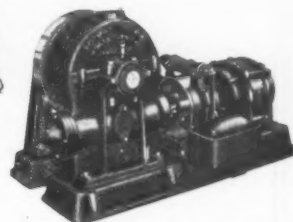
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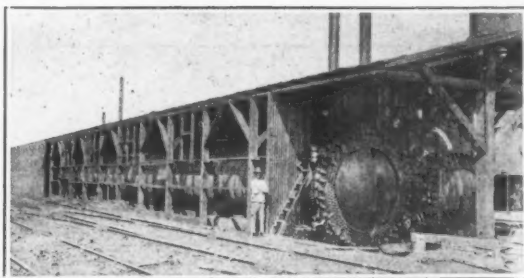


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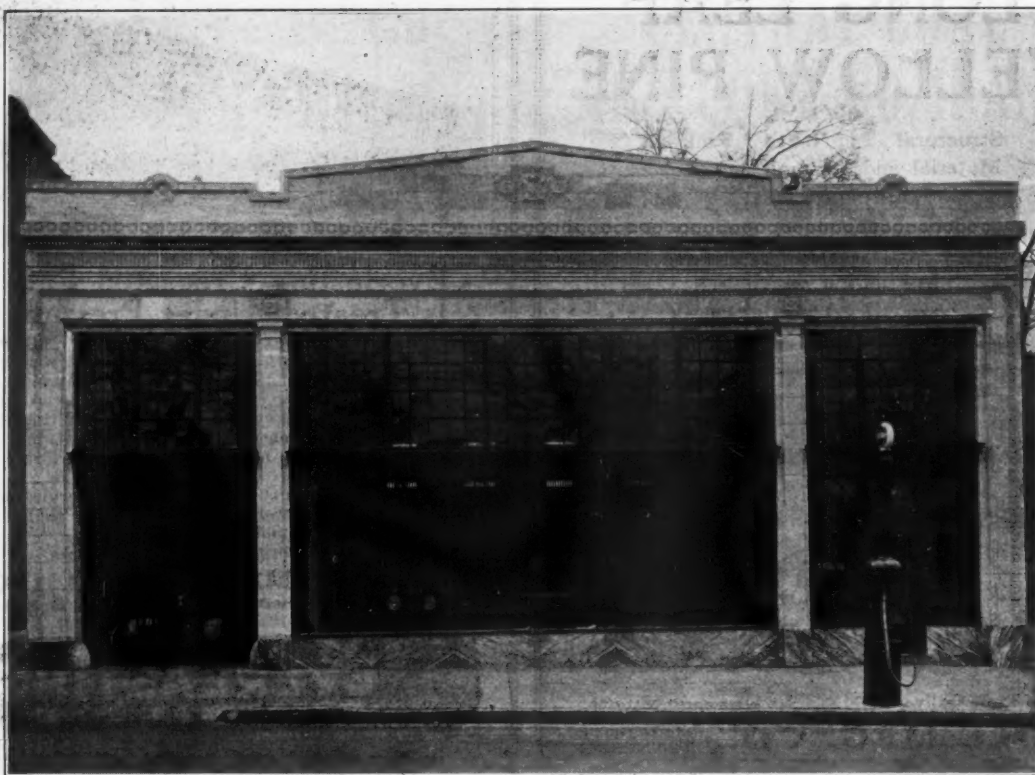
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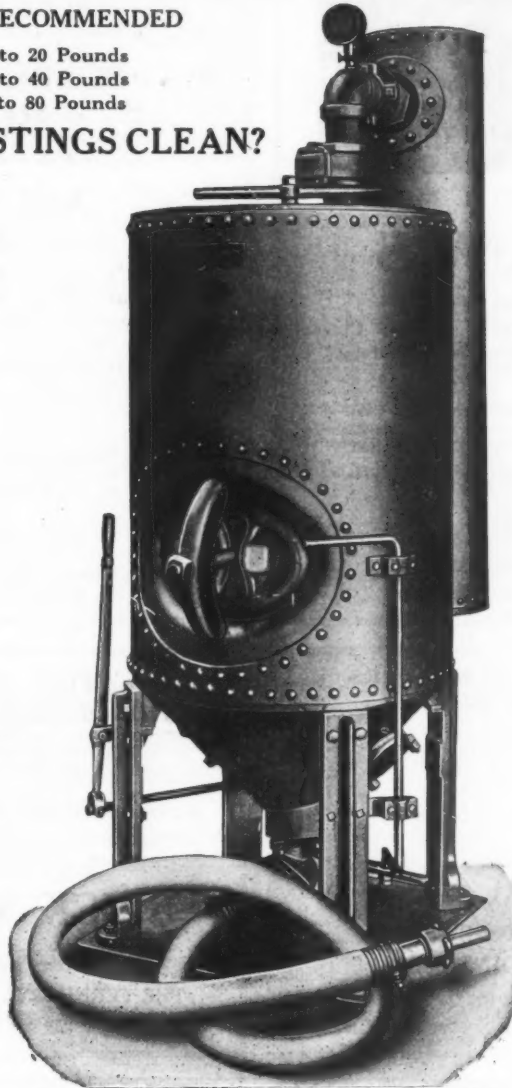
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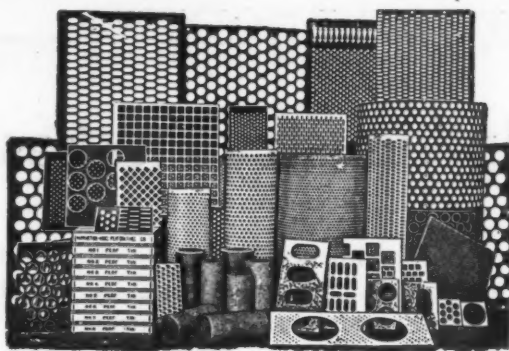
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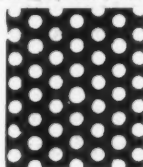
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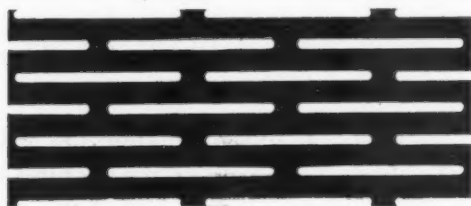


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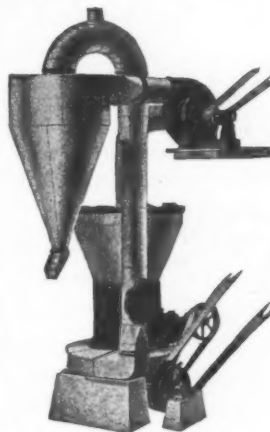
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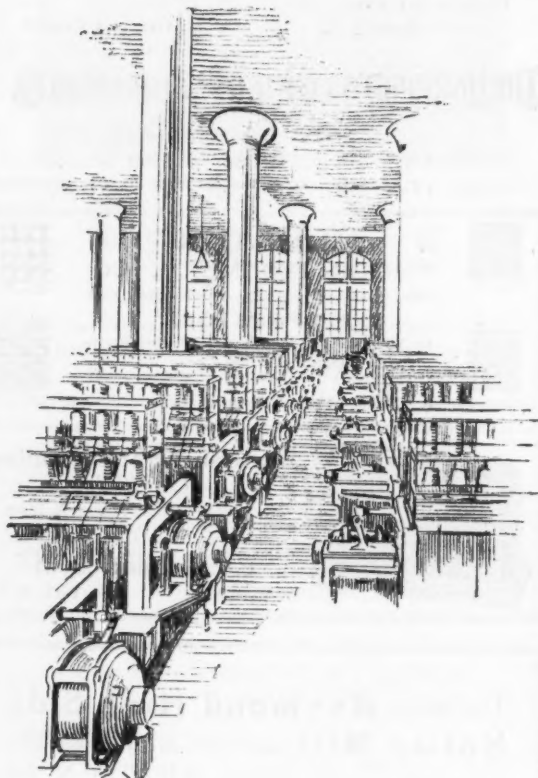
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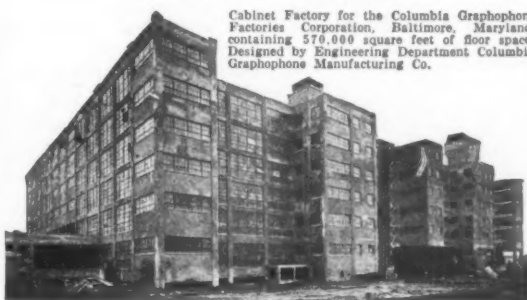
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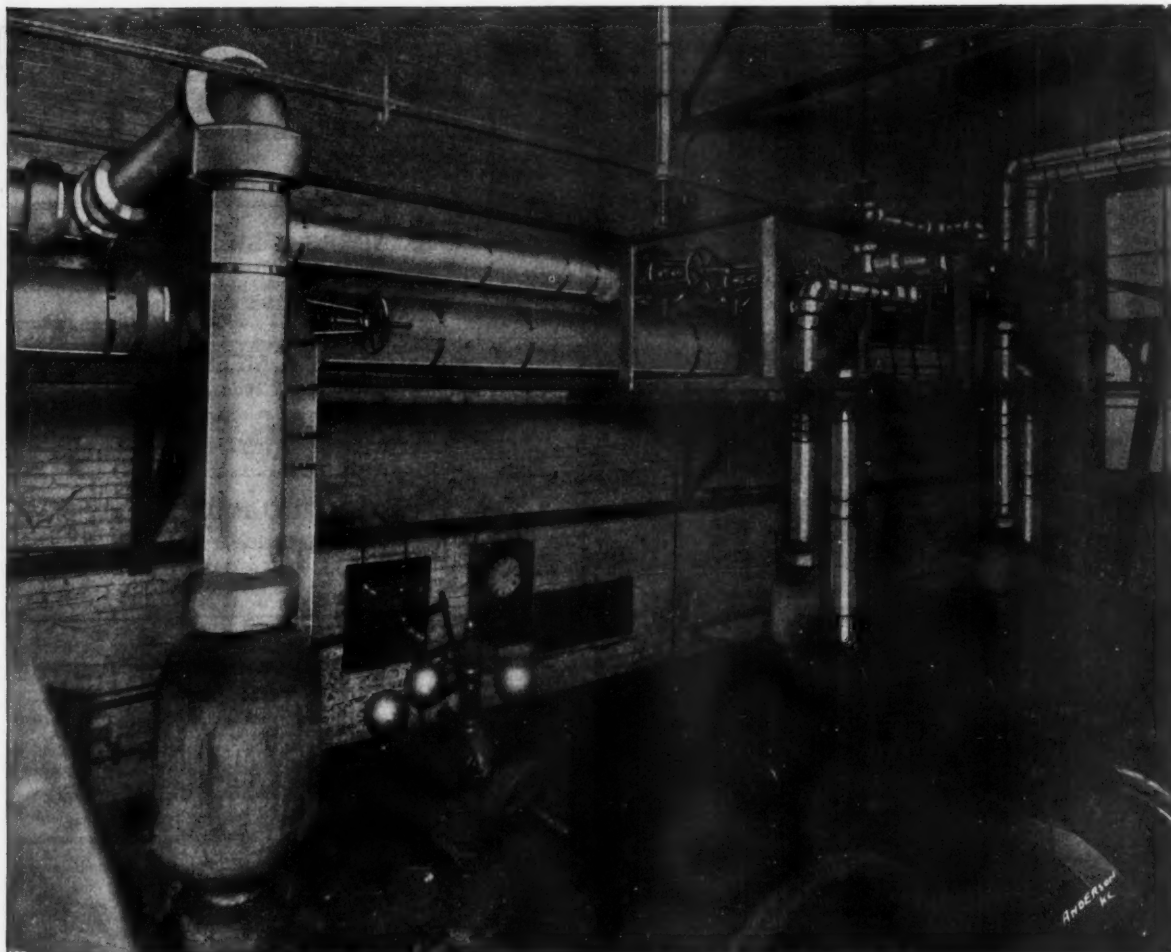
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Manufacturers Record

Exponent of America

NOVEMBER 17, 1921.

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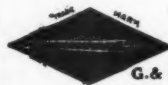
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Manufacturers Record

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Vol. LXXX, No. 20
WEEKLY.

BALTIMORE, NOVEMBER 17, 1921.

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In order to avoid delays all correspondence pertaining to news or advertising matters should be addressed directly to the Manufacturers Record, Baltimore, Md., and not to individual editors, officers, employees or any branch office.

WHY RAILROAD FREIGHT RATES ARE HIGH.

MR. W. E. DUNN, Jr., Secretary of the Southern Metal Trades Association of Atlanta in a letter dated November 3rd to the MANUFACTURERS RECORD, dealing with freight rates, said:

"I have read with much interest your several articles to the effect that Freight Rates should come down.

"I am today sending you copy of letter I am writing to Chairman R. M. Barton of the Federal Labor Board in this connection, and I feel sure that after giving consideration to the conditions enumerated therein, which were brought about by Union Labor, that you will readily understand why it now costs \$23.07 a ton for freight on pig iron from Birmingham to San Francisco.

"So long as the ridiculous working rules and unreasonably high rates are in effect, have we any right to expect the railroads to accept less income when many of them have been bankrupted by said rules and rates?

"I am just advised by a prominent railway executive as follows:

"I might safely say the number of our mechanics was increased fully fifty per cent in number by being compelled to classify laborers and helpers as mechanics with standard rates and back pay when it was found they straightened out bolts on scrap pile, helped put freight car trucks together and all such rough work as had been handled by laborers and helpers for years in the different departments of the car and locomotive shops."

DO IT NOW!

THE Atlantic Bitulithic Company of Richmond, Va. advises the MANUFACTURERS RECORD that it has secured a contract at Daytona, Fla., for 120,000 square yards of paving and for sewers amounting to about \$100,000. On its new paving work Daytona is expending between four and five hundred thousand dollars, and in this respect is following the wise example of all progressive towns in Florida and elsewhere in utilizing the present situation for municipal work of this kind.

THE SUPREME HOUR OF CIVILIZATION.

PRESIDENT HARDING'S speech at the grave of the Unknown Soldier on Friday, closing with the Lord's prayer, and all the solemnities of that occasion, had sobered the thought of the world and created an atmosphere of great dramatic and strategic importance for the launching on Saturday of the Disarmament Conference. It might indeed be said that the ceremonies of Friday had been Divinely guided to make the world ready for the proposition of Secretary Hughes which startled mankind with its amazing frankness and its far-reaching possibilities.

Into the hearts of mankind, plowed deep and made tender by the emotions of the Armistice Day, were sown the seeds which watered by the tears of womanhood and fertilized by the prayers of unnumbered millions in every land on earth, will fructify into a harvest of illimitable good.

How different the setting of this conference and the Versailles Peace conference! The former recognized Almighty God as the guiding power of mankind when men submit themselves to His leadership; the latter had no time for God and was bent upon carrying out its will regardless of God's will. There unscrupulous diplomacy, boundless selfishness, the grasping hand seeking only its own advancement, the vaulting ambition aiming at world management and brooking no opposition. Failure was written into every line for the unseen hand wrote upon the parchment of the treaty "Thou art weighed in the balance and found wanting!"

Here God was recognized, the Divinest prayer ever taught to man by Him who spake as never man spake, invoked God's guidance, and the conference opened with a recognition of the need of Divine help. In such an atmosphere envy and jealousy, selfishness of nations and individuals and personal ambitions for glorification, shrank back abashed, and temporarily at least inert and lifeless.

Through Secretary Hughes, its chosen speaker, this nation voiced a program daring in its scope, marvelous in its conception, humane to the last degree, and Divinely inspired, we believe, as a challenge to the world, not to war, but to peace, not to enmity, but to love.

Never again can any nation wage war for selfish ends, for commercial aggrandizement, for world domination, without answering to the awakened conscience of all mankind.

The most momentous hour in human history since the Son of God died for man's salvation is upon us. We are

living in "an age on ages telling when to live is sublime." God is in His Heaven and all is well, for He is leading the nations so long as in this conference men submit to His guidance. A new world is rounding into form. Let not man fail in this the supreme hour of civilization.

TOO LATE, MR. LEE.

"I shall get down on my knees and thank God that the catastrophe has been averted," said W. G. Lee, chief of the Brotherhood of Railway Trainmen, yesterday: "I have on my desk thousands of letters from wives and children of railroad employes asking me to do everything possible to prevent a strike. When I think of the suffering a strike would have caused these people, when I think of the disaster it might have brought to the country, I say again I thank God we took the action that we did." Here is an admission and a revelation, an admission from one of the leaders who called the strike—although himself objecting to it—that it would have been calamitous to the country; and a revelation of the recognition by him and by the families of railway employes that it would be calamitous to them. Yet the strike was called and full arrangements made to put it into effect. That should not occur again.—St. Louis Globe-Democrat.

If Mr. Lee felt as deeply in regard to the strike as he here expresses himself, it was his solemn duty to issue a warning to men under him urging that there be no strike. He was recreant in his responsibility to man and God, if in so critical an hour, when the comfort and perhaps even the lives of millions of people depended upon his action, if he simply permitted himself to be swept along by the rising tide of agitation and waited until the strike was called off by the power of the Railway Labor Board to express his real feeling on the subject. It would have been infinitely more to the credit of Mr. Lee if he had said that he believed in pushing the strike to the limit rather than to say that he was too cowardly and lacked the moral courage to stand up and tell the men under him that a strike would have been a catastrophe and that he would get down on his knees and thank God that there was not to be a strike. He thanks God that the railroad men took the action that they did in calling off the strike, but the strike was not called off until the hands of the railroad men were forced by the Labor Board and until public sentiment had been aroused to such a point that if the strike had been carried out, the entire railroad brotherhood would have been practically crushed out of existence by the awakened power of the public and the spirit of determination that 2,000,000 men should not threaten 100,000,000 men and women and force them to an ignominious surrender of their rights as Americans.

Mr. Lee is too late in his repentance. He shows too much the spirit of the coward. The time for him to have shown moral courage and character which would have counted for something was when his organization was threatening a strike in order to starve millions of people into submission by the dictates of an organized brotherhood. A dying sinner once refused to ask God's pardon, for, said he, "It would be as though I had spent a lifetime in wickedness and burning the candle of life at both ends only at last to snuff the smoke of the dying candle in God's face." Mr. Lee didn't even have that much courage.

As a matter of fact the strike would not have been a catastrophe to the country, as Mr. Lee suggests; it would have been an everlasting catastrophe to the brotherhoods, for they would have been crushed, but the country would have survived, and in the long run a strike would have proved a blessing to the nation by giving to these organized bands who have for five years been threatening the life of the country such a licking as they never had but which for five years they have badly needed. There are too many good, honest-hearted men in the railroad brotherhoods to

permit themselves to be dominated by a radical element which against all right and reason would, had it not been for the Government's interference, have brought on the strike. These men owe it to themselves to stand out before the nation hereafter and determine that their leaders and the radical men in their own organization shall not cause them to threaten to starve this country. These good and honest men, God-fearing men, as many of them are, owe it to themselves and to the country and their own families not to wait, like Mr. Lee did, till after no strike was in sight to repent but to make repentance unnecessary by refusing at the beginning to be a party to such work.

The Blue Book of Southern Progress; or, The South, Yesterday, Today, and Tomorrow.

UNDER the above heading the MANUFACTURERS RECORD will shortly publish the most valuable compendium which it has ever issued of the progress and the prospects of the South. In this story of the South will be briefly sketched many strikingly important facts about the achievements of the South prior to 1860 as indicating the inherent forces and resources of a section which wrought marvelous achievements little understood by the people of the present. In those days the South made history industrially and commercially as well as politically, but left the writing of history to others. Without the knowledge of what the old South achieved, it is impossible adequately to understand the South of today or its future in relation to the development of the coming years of the whole country.

The amazing achievements of the South since 1880, which have placed its output in agriculture and manufactures far ahead of the total for the United States in 1880, reads like romance, but the facts which are presented show that the South has indeed wrought a miracle.

Having the greatest natural resources in the country for the development of manufacturing which will enrich the nation, it is possible to say that the **South is the greatest undeveloped natural asset of the United States**, and the utmost utilization of these resources will advance the prosperity of the entire country far beyond anything which we have yet seen.

In connection with this sketch of "The South of Yesterday, Today and Tomorrow" will be published a most elaborate statistical review, giving in detail the achievements in agriculture and manufactures in every one of the Southern states over a long succession of years and presented in such tabular form as to make these figures invaluable to every business man and to every student of history.

The Blue Book of Southern Progress should be in every library, private and public, in the country, and in every counting room in America. No one can possibly understand the South and its relation to the future of the entire country without having before him the facts which are so graphically presented in this story of thrilling interest, where statistics are made to speak with compelling force.

The World's Most Momentous Conference.

THE most momentous conference in human history is now in session in Washington. There are dangers in the conference more deadly than dynamite, just as there are potentialities for good of world import. Civilization may hang in the balance, based on what this conference does or does not do.

In one sense it is not a disarmament conference, though much has been claimed for it on that score. Disarmament is a vain delusion so long as sin runs rampant in the world and nations are controlled by individuals and until sin has been eliminated, by the power of Christianity, from the individual life. As stated by President Harding: "This is a conference not for disarmament but for the lessening of armament rivalry".

There are many forces at work throughout the world which are not for peace. The spirit of evil is not dormant. It is more active today than ever before in human history, so far as the teachings of history indicate—rampant, unblushing sin, in high and low places, disregard of all human rights, disregard of morality, with the world bent on pleasure, with many great cities the hotbed of the devil's activities, apparently surpassing in evil all that we may know of Sodom and Gomorrah. It looks as though Satan is putting forth the mightiest energies, perhaps realizing that humanity must forever be damned at present by his work, or otherwise it may be saved from his power.

More than two-thirds of the population of the world are not Christians. They are not controlled by the Gospel of Christ; and the number, even in so-called Christian lands, of those who are really Christians in deed, in spirit and in life, is far less than the total population of those countries.

It must be borne in mind, therefore, that the religion of Christ does not control the world, and until the time comes when this unfortunate fact is no longer true individual sin will be rampant; and as nations are made up of individuals their governments will likewise often be dominated by the spirit of selfishness and of sin in all forms.

Moreover, about two-thirds of the world's population is largely alien in thought and in racial traits to the white population of America and Europe. Throughout the Orient and wherever the yellow or the black races are found, there is an awakening spirit of hostility to the white races. Several hundred million Mohammedans have been trained through generation after generation to believe that they are to conquer the world by the sword.

Under these conditions no thoughtful man can say that a general disarmament policy would be wise on the part of England, whose very existence depends upon the control of the seas and the power to protect its world-wide commerce. Nor can France disarm while living side by side with the Huns, who for 2000 years have made looting in war a business, and who today are moved by exactly the same passions, the same ambition for world domination which sent their accursed armies marching through Belgium and France. Nor can America—facing all the world problems of today, the envied of all nations on earth, some of whom long for the opportunity of conquering this, the richest nation that the world has ever known—afford to disarm.

We shall almost certainly find some way in which to lessen the rivalry in armament. Forced by the realization of the awful horrors which would attend another war, more fearfully destructive by chemistry than all the wars of the past, the Washington conference must definitely lessen the rivalry for armament, now one of the great dangers which the world faces. But let no one be deceived by

the thought that complete disarmament on the part of the civilized nations of the world is any more feasible than would be the complete abolition of the police force in any great city, where robbers and murderers ply their crimes in proportion as the power of police protection is not equal to safeguarding the property and the lives of the citizens. Until we can find it wise to abolish our entire police system and live in safety we shall not find it possible to wholly abolish the safeguard against the criminal activities of other nations.

As Japan struck Russia without a note of warning in advance; as Germany, preparing for years for world domination, struck at Belgium and France ere they realized the danger facing them; as the midnight robber breaks into the home, prepared always to murder if necessary, so many of the nations of the earth, controlled by evil forces in power, might at any moment strike against England or France or America. To be unarmed would, therefore, foredoom the nation attacked to destruction.

The responsibility to world civilization, as well as to our own welfare as a nation, demands that this country shall not leave itself exposed, with its vast treasures tempting the world's cupidity, without adequate protection against world robbers. The head of a family, however sincere and earnest may be his own religion, would be recreant to his responsibility if he left his home with his wife and daughters in a lonely place, infested by thieves and murderers, without safeguarding them from sudden dangers.

What is true of the individual family is true of all the civilized or so-called Christian nations of the world. They must safeguard their future, even though the expense of doing so is enormously burdensome but that this expense can be greatly lessened to the world is unquestionably true. The man who pays fire insurance all his life may find the cost heavy without ever a fire destroying his property, but he pays for preparedness against the danger of possible conflagration.

Let it not for one moment be supposed that the MANUFACTURERS RECORD is not in favor, to the utmost extent which comports with safety, of disarmament or of lessening the world's rivalry in armament. We hate war with an undying hatred. We hate all of the evils which are inevitably intermingled with war. We hate to think of the fearful sorrows and sufferings of the men on the battlefield, and the women and children at home. But we hate, also, the spirit of murder and of crime which runs rampant throughout the world; but as we are compelled to face the realities of criminal activity, so we believe the nation must face the reality of criminal control which often dominates nations as it did Germany.

Until the whole world bows before the Cross of Christ and yields obedience to Him, there will be wars and rumors of wars, and men will in vain cry, "Peace, Peace, when there is no peace!"

Let us not, therefore, be carried too far away by a spirit of sentimentalism in the belief that the world is to have no more wars. We have not reached that time yet. For if that spirit should prevail in the discussion of the Washington Conference the inevitable end of the conference would cause a reaction and be productive of harm rather than of good. In the meantime it behooves everyone to enter fully and whole-heartedly into the support of the proposition laid down by Secretary Hughes and to go to the very limit in demanding action by the conference, as far as may be humanly possible in harmony with America's program for lessening the world's rivalry in armament.

Advertising Agency Disseminates Propaganda in Form of Reading Matter to Destroy American Potash Industry.

[Copy.]

Baltimore, Oct. 28, 1921.

Messrs. N. W. AYER & SON,
Philadelphia, Pa.

Gentlemen:

Referring to your propaganda circular of Oct. 27th in regard to the potash question, permit me to say that I seriously question the propriety or the ethics of a great advertising house mailing out stuff of this kind with the hope that because of business connections the newspaper will be misled into publishing such statements.

I do not know whom you represent in the matter; I presume the German Kali Syndicate, as I know of no other people who would be willing to pay for carrying on a campaign against the development of potash industry in America.

I sent your circular to one of the best informed men in the country, and in reply he writes:

"In regard to the statements sent you by N. W. Ayer & Son of Philadelphia on potash, I should say that no statement more full of inaccuracy and misinformation has ever been called to my attention. **** I do not know for whom Ayer is acting, and I do not know how extensive their propaganda efforts have been."

I have no objection, from a newspaper point of view, to any business organization carrying on an advertising campaign through the displayed advertising pages of a newspaper, even if it is done for the express purpose of carrying on a propaganda for or against a tariff measure, because the public can then see who is backing the enterprise and appraise its value accordingly. But I do protest against a reputable firm such as yours sending out to the newspapers of the country as reading matter for the purpose of misinforming newspapers not well informed on the subject, propaganda which is for the express purpose of breaking down the development of an industry in this country, the development of which is absolutely essential to save us from dependence upon Germany—the accursed nation which sought to wreck America and all civilization.

I dare to raise the question as to who is back of this propaganda, and who is paying for its distribution? Certainly it does not seem to me that a house which has stood so long and reputably before the country as that of N. W. Ayer & Son would be willing to lend itself to an anonymous propaganda of this character; for behind anonymity there always hides cowardice of one form or another.

Very truly yours,

RICHARD H. EDMONDS,

Editor.

[Copy of reply]

N. W. AYER & SON, Advertising Headquarters.

Philadelphia, November 5, 1921.

November 5, 1921.

Manufacturers Record,
Baltimore, Md.

Attention: Mr. Richard H. Edmonds

Gentlemen:

We were much surprised to receive your letter of October 28, questioning the propriety of our sending an outline of the situation arising from the proposed import tax on potash.

First of all, may we make clear the basis on which we submit material of this kind to editors? It is never our purpose to put to any unfair use our business connections with newspapers or other publications. To make this perfectly clear, the sheets on which we release material for news or feature use bear the following printed statement:

NOTE TO EDITOR—We believe that you will find the material on this sheet of a nature meriting a place in your news or editorial columns. But we wish it understood that we are not asking you to print it because we may have placed advertising with you on this or any other subject.

Our letter of October 27 does not include a request for the publication of any of the material which we sent with it. The last sentence in that letter says specifically that the resumé "is submitted to you in the belief that you may find it to be informative regarding a subject upon which you may wish to make editorial comment."

We realize that one in your position would not imply that we purposely misrepresented any facts in the situation without being well fortified with proofs to support this inference. May we ask, therefore, that you specify any points wherein

our summary of the situation is either inaccurate or misleading?

Inasmuch as we are acting in the interest of the entire fertilizer industry, we do not see that the name of the client most immediately concerned is germane to the issue which you have raised. We can assure you, however, that it is not German Kali propaganda. You are doubtless aware, incidentally, that France has sent to America this year approximately as much potash as Germany. You are doubtless also aware of the fact that it has been somewhat of an unwritten economic law in the fertilizer industry as, indeed, in the whole industry of agriculture, that plant food be kept internationally duty free. It has been agreed that no tax either import or export should be placed on any element so essential as potash in the world's food production.

If, in your judgment, the tariff on potash is not a suitable subject for discussion in your publication, we have no disposition to argue its news or editorial value with you. We do feel, however, that the imputations in your letter merit further explanation.

Yours very truly,

N. W. AYER & SON.

The foregoing correspondence in a measure explains itself. N. W. Ayer & Son is a dealer in advertising; it controls a great volume of business. There are a number of publications which feel that they would be put out of business if they incurred the hostility of N. W. Ayer & Son. A request from this powerful firm to such dependent publishers comes almost with the force of a command. Not only so, but even the most powerful publisher is likely to feel that any favor asked by such a firm should receive, let us say, considerate attention.

It is not generally known that N. W. Ayer & Son, in addition to their advertising business, accept for hire commissions to disseminate publicity or propaganda that masquerades as news matter. We note, for instance, that the New York Commercial, under date of November 1, carried essentially this particular Ayer propaganda under a Washington date line, and no reader could have supposed that it was anything other than a reputable news dispatch from the capital. The space used in the Commercial was about half a column. Advertisements are usually paid for, but, of course, if the newspapers can be persuaded to carry "copy" free of charge, there is nothing to prevent N. W. Ayer & Son from profiting handsomely. It can hardly be imagined that this advertising firm was hired because of any particular ability to present a case, since it is perfectly obvious that the case was abominably prepared. The purchasers, we are forced to suspect, were buying, or thought they were buying, "influence." And how was that influence got, which this advertising firm so plenteously, if deviously, exposes in the marts for barter? Why, by its control of huge legitimate advertising appropriations.

We do not believe that the practice thus exposed is general. If it were, it would be necessary for Congress at once to prohibit such an unnatural and glutinous twining of functions. If there are firms whose ethical perceptions are so dull that they cannot sense the impropriety or positive indecency of capitalizing their control over advertising contracts to bring publications into acceptance of propaganda masquerading as news, then it is time that federal statutes be employed as a corrective.

A gentleman who is morally derelict will often discover that his sensitive conscience is an accusing witness. N. W. Ayer & Son take great credit to themselves that they placed on their propaganda the following:

"NOTE TO EDITOR: We believe that you will find the material on this sheet of a nature meriting a place in your news or editorial columns. But we wish it understood that we are not asking you to print it because we may have placed advertising with you on this or any other subject."

It is said that a firm selling malt extract and hops furnished with each package a sheet of directions and these directions said, in effect: "Do not do the following things or you will make real beer, which is illegal." That N. W. Ayer & Son knew they were doing, let us say, a suspicious thing, is indicated by the fact that they halfway apologized for it in advance.

In the original propaganda sent out by N. W. Ayer & Son the impression was plainly given that their concern was for the consumer and the great public. We now discover, in their own words, that they "are acting in the interest of the entire fertilizer industry." We wonder how far they would have got with their original publicity if they had carried a "note to the editor" saying: "This material is issued in the interest of the entire fertilizer industry, by whom we are being paid to see that it reaches the reading public." The firm appears to take great credit to itself that it is not acting for the German Kali cartel, but is merely trying to put something over for a great special American interest. And it is not even wholly truthful in its statement that it is acting for the entire fertilizer industry, for it is certainly not authorized to speak for the potash industry, which admittedly has considerably to do with fertilization. We saw no statement in the New York Commercial, or in any other paper that its apparent news story from Washington on potash was published "in the interest of the entire fertilizer industry", by or for whom the dispatch had been prepared.

So far as N. W. Ayer & Son's connection with the matter is concerned, their fault would not be excused even if it were true that the detailed statements in their one-sided presentation of the case happened to be accurate. They had stated in a letter to each editor that "enclosed herewith is a resumé of the entire situation prepared with great care as to the facts." And yet, instead of covering the entire situation, the statement was *ex parte*, giving only one side of the question. And the inexorable truth is that many of the so-called facts it did give were not facts at all.

The N. W. Ayer & Son publicity stated emphatically that a "joker" was inserted in the Emergency Tariff Bill, as it passed the House, for the protection of potash, and that domestic potash producers, fearing delay in the passage of the Fordney bill were "now" endeavoring to slip an identical clause into the Emergency Tariff bill if it should be extended after November 27. But the Emergency Tariff Law has been extended by vote of both the House and the Senate and there is not a word in it to indicate that the Ayer apprehension was justified. Moreover, Mr. F. W. Brown, the executive secretary for the United States Potash Producers' Association, who may be presumed to know what the potash producers have tried to do, states that he had never heard of any such proposal or of any such effort until he saw the charge in the Ayer publicity. Senator Shortridge, it appears had independently made some suggestion of the sort, but there was no organized movement. Even the most casual follower of Washington affairs must know that weeks ago a decision was reached by the Administration leaders that if the Emergency Tariff Act were extended, the extension should be made without amendment, and there was no more likelihood of the event happening which the advertising firm declared was imminent than there was of any of its other propaganda apprehensions being realized.

Equally unfortunate was the statement of the Ayer firm that the "domestic potash producers have inserted a 'joker'" in the Fordney bill, as it passed the House. That is an insult to the entire House. It gives the impression that the potash industry was powerful enough to command Mr. Fordney and his associates to do something, and the propaganda takes that absurd view after having in the previous paragraphs emphasized the fact that the potash industry in America was so weak, financially and otherwise, that it "will never be

able to thrive." The provision in the Fordney bill is not a "joker." It is an expression of wholesome American doctrine, incorporated in the bill after due hearings, long consideration and most openly.

The absurdities of the Ayer publicity are almost on a par with its inaccuracies. Imagine the asininity of a statement to the effect that "cotton and potatoes *** would immediately begin to cost three dollars per acre more to produce." Why, millions of acres of cotton never had a pound of potash on them this year, and to measure a supposed increased cost by the acre is as absurd as to measure it by thermal units. But this famous advertising firm, which may claim to have been selling logic, shows to its satisfaction that the total cost of potash protection would be, for *five years*, \$34,000,000. So it "proves" after having made the statement that the cost would be more than three dollars the acre for cotton. More than 30,000,000 acres of land are normally planted in cotton alone every year. For cotton alone, then, in one year, according to the Ayer firm, in one paragraph, the extra cost to the American people would be more than \$90,000,000. But Ayer also proves that the cost for *five years* would be \$34,000,000. And with such a mathematical exhibit as that to its credit, N. W. Ayer & Son ask that we "specify any points wherein our summary of the situation is either inaccurate or misleading." Must we submit proof that two plus two make four?

We can find hardly a single statement in the entire document put out by N. W. Ayer & Son, which we have not room to print, which is not open to argument, if an opinion, or to dispute if averred as a fact.

The proponents of the plan for the upbuilding of a domestic potash industry are advocating protection because the war proved, first, that a domestic supply was an absolute requisite for maintenance of the national food supply should the foreign supply be interrupted, as it was; secondly, that a domestic supply could be obtained. So sure of this last are the producers that they are given protection, at diminishing rates, for five years only, after which there is to be no duty. Moreover, it requires little imagination to comprehend the fact that if our domestic supply is destroyed, the allied French-German potash monopoly will not hesitate long to bring prices up to a point higher than will prevail under tariff conditions, with American competition. The arguments in favor of protection are not only compelling from the viewpoint of economics, but are decisive from the viewpoint of national self-sustenance.

The American potash industry increased its production from about 10,000 tons annually in 1915-16 to more than 54,000 tons in 1918. If assured of encouragement, there is no limit to potential production.

Great fundamental issues are not to be decided by misrepresentation or by the employment of reprehensible methods in the dissemination of propaganda. The contamination of news sources, which is inevitable if such institutions as N. W. Ayer & Son are permitted to mask their publicity, (for which they are paid), in the guise of uncolored news dispatches, strikes at the very foundation of law and order where the form of government is republican and policies must be decided by the people, who are themselves dependent on the accuracy and impartiality of the news. In this case, we have an essential American industry, vital to the nation in time of war, assaulted most unfairly by interests which apparently purchased anonymity and launched their attack under the auspices of an advertising agency which was willing to further the masquerade, and it is worth noting that some of the big fertilizer companies own potash mines in Europe and are perfectly willing to destroy the American potash industry for their own purely selfish interests; but then Ayer & Son did not give the public such facts as these.

TUMULTY'S BETRAYAL OF CONFIDENCE.

NO more pitiable spectacle has been presented for many years, even in these degenerate days, than the act of Mr. Tumulty, for years the private secretary to President Wilson, in divulging the inner secrets which should have been forever buried in the mind and heart of the man who had stood so close to the President. We do not know of a more palpable betrayal of confidence in private or business life than the betrayal by Mr. Tumulty of the things which as confidential private secretary he learned from President Wilson. There are few relations in which the utmost confidence and integrity must be maintained as between the business man or the public man and his confidential secretary. That tens of thousands of stenographers hold this confidential relation, and never discuss outside of their official work the business or political affairs of their employers, is everlastingly to their credit, but here is a man who held that confidential relation to President Wilson, and who out of this betrayal is now coining money, every dollar of which should burn a hole in his pocket, if not in his conscience. Had Tumulty been Mr. Wilson's worst enemy he could not have done him a greater injury than in this betrayal through his syndicated letters, which are being printed by the New York Times and other newspapers, and which are to be published by Doubleday, Page & Company in book form.

Mr. Tumulty admits that President Wilson will never read the book which he is publishing, and would be opposed to its publication. We are not surprised, for so long as President Wilson maintains his mentality and his sense of right and wrong, we can readily imagine that he would not want to read so complete a betrayal of the confidence which he for many years placed in his private secretary. Instead of a story which might perhaps have been written of value to President Wilson, Mr. Tumulty has written one which Mr. Wilson's worst enemies must for the honor of their former President deeply regret should ever have been published. For instance as a writer in the New York Times has mentioned, Mr. Wilson and Mr. Tumulty, according to the latter's statement, regarded Mr. McCombs as "abusive, envious, malicious and unreliable," and yet President Wilson offered the position of ambassadorship to France to the man whom he, according to Tumulty, had thus described, which in itself was an insult to France. In another place Tumulty, in reply to some statement regarding the public criticism of what Mr. Wilson was proposing to do, quotes the former President as saying, "I am sorry but I do not care a damn for the criticism of the country." Wm. H. Vanderbilt said, "The public be damned", in discussing the railroad situation, and ever since then the railroads have been damned by the public largely as the result of that unwise remark. If Mr. Wilson made the statement credited to him by Tumulty as not caring "a damn" for the views of the public or for the criticism of the country, it is lamentable that that bit of news should not have been buried forever in Mr. Tumulty's mind, and not be brought forth today, for it merely serves to indicate a spirit akin to that of Vanderbilt's, and a disregard of profanity from a Presbyterian elder holding the responsible position of President of the United States.

We hope that the Times and Doubleday, Page & Co. will, for the honor of the country and of President Wilson, cease to publish the Tumulty revelation, as a sad illustration of how a man, for years trusted as a confidential adviser and secretary, could thus betray the man with whom he was so long associated, even if he claims to be doing it under the guise of friendship.

No wonder Tumulty says Mr. Wilson will not read the book and will be mad at its publication.

THE LARGEST SINGLE ADVERTISEMENT WHICH EVER APPEARED IN AN AMERICAN DAILY NEWSPAPER.

THE Tampa Hardware Company, a large wholesale concern, of Tampa, Fla., has set an example to the business people of the entire country. In last Sunday's edition of the Tampa Tribune that company carried an advertisement covering forty pages, which is said to be the largest newspaper advertisement of one concern ever printed in the United States.

Writing to the MANUFACTURERS RECORD in regard to the matter, the Tampa Hardware Company says:

"Under separate cover we are mailing you a copy of the Tampa Morning Tribune of Sunday November 6, which contains a forty-page section devoted exclusively to the interests of this company and to the interests of those from whom we buy merchandise.

"This section follows a big space advertising campaign extending over a period of several months. We have conducted this campaign at a time when many others were curtailing their advertising appropriations, and the results have been eminently satisfactory, as our business during the present year surpasses any previous record we have made.

"This forty-page section will have a state-wide circulation, and judging from past experience should be the most productive advertisement we have ever carried. We have found that direct results from big space advertising have been particularly marked in our own case and we anticipate that they will be proportionately noticeable in the issuance of this special section. In addition, we feel that the psychological effect upon the buying public will alone be well worth the cost of the issue to us.

"Besides the regular Sunday circulation of the Tribune, which is about 33,000, marked copies of this edition were sent to all the retail hardware dealers, general merchandise dealers, furniture dealers, garages and the 293 banks in Florida. Over 1,000 copies were sent to hotels and restaurants in Florida.

"Each member of the Southern Hardware Jobbers Association, the National Hardware Jobbers Association and the American Hardware Manufacturers Association was mailed a copy marked 'Personal.' Several thousand copies were mailed to the leading banks, trade papers and friends of this company throughout this country, Central America and the West Indies.

"We admit that it may appear unusual for an exclusively wholesale concern to be regular users of page space as we have done in the past, but we have found the advertising investment a most profitable one, and feel that there may be some helpful suggestions in our 'Achievement Edition' to other hardware dealers.

"For this reason we are passing it on to you for whatever disposition you may see fit to make of it."

Not only is this advertisement of the Tampa Hardware Co. a helpful suggestion, as Mr. Thomas indicates, to the hardware people, but it should be a helpful suggestion to every business concern in the country. There is a psychological power in advertising, broad, comprehensive and persistent advertising, the extent of which no one has ever yet been able to measure. England raised its volunteer army of 5,000,000 men by tremendous advertising. The United States sold its bonds to 20,000,000 people through advertising. Advertising is a power of almost immeasurable potentialities. Its influence cannot be exaggerated or overstated, and we commend to all thoughtful business men in this country the action of the Tampa Hardware Co.

A CORRECTION.

IN the issue of October 27, the table containing the census figures since 1880 of the value of manufactured products in the South, through a typographical error, had North Carolina and Maryland interchanged. It should have read:

	Value of products			
	1880.	1900.	1910.	1920.
Maryland.	\$106,780,563	\$211,076,143	\$315,669,150	\$873,945,000
N. Carolina.	20,095,037	85,274,083	216,656,055	943,808,000

\$313,971,211 in Construction Projects South During Past Fourteen Weeks.

With a total of approximately \$314,000,000, the record of contracts awarded and to be awarded on construction projects of all kinds throughout the South, as compiled from the construction columns of the MANUFACTURERS RECORD, definitely confirms the continuation of fall building activities on a level practically equal to the high mark established during the mid-summer months and shows but little trace so far of the usual seasonal slump. These figures are strikingly borne out by a comparison of building activities in 60 representative Southern cities as indicated by the recent monthly reports of the various building inspectors.

True to predictions made the early part of this year in these columns, the tide of construction activity has maintained a comparatively even level throughout the year, and the amount of money involved in contracts actually awarded has steadily increased in the sum total of contracts awarded and to be awarded as recorded each week. Indications are now that the big building program will be continued at present rate, with only such deterrents as bad weather conditions, etc., until the holiday and inventory season—when activities in practically all lines normally show a slackening. There seems to be justification for the belief that with the new year they will be vigorously pushed to a big volume at the opening of spring, when, in the opinion of many building supply men, students of the housing situation, and other close observers of present conditions there will be inaugurated a building program exceeding in magnitude and widespread scope that of almost any other period in the history of the country. As a result of the confidence that is now manifesting itself in the future of construction, sales of both hardwood and softwoods are being maintained at a high level; shipments are going forward at new high figures, and production is being encouraged to maintain a sufficient supply of materials for the spring trade. Lumber prices have stiffened recently and some plumbing, heating and electrical supplies have also gone to higher levels, although every effort is being put forth to prevent price increases fearful lest a damper be placed on building operations.

A new high record for contracts awarded was established for the week ended October 7 when the valuation of such projects totaled \$10,672,996, the total contracts awarded and contracts to be awarded for that period being slightly less than \$26,000,000. The previous high record was on September 2, contracts awarded for that week amounting to \$8,341,330. The high record of spring months was for the week ended April 22 when out of a total of approximately \$40,000,000 representing projects for which contracts were actually awarded, and initial announcements made, the former classification involved \$8,286,454. A comparison of the figures for this week will show the big proportionate increase made in contracts awarded considering the total expenditure involved for each week.

During September there was a decided reduction in the amount of money involved in new projects, but the figures representing newly planned projects sharply increased during October and indications are that this level will be maintained during November. This means that with the opening of next year plans will have been completed for many projects which can be gotten under way without delay so that the construction activity can go forward without any appreciable slackening. The relaxation of credit restrictions will enormously boost building activity, especially that of houses, hotels and apartments, which to a large extent featured building activity during 1921 as contrasted with 1920 when house building was but a small part of the program.

Because of the preponderance of small projects costing several thousand dollars and upwards contractors and builders who have devoted their time heretofore to big projects are prone to say that this year's building activities have not been large, but building permit statistics show that taking the South as a whole the building valuation this year far exceeds that of 1920 despite the big decrease in building costs. As a Baltimore paint manufacturer stated the case recently, he was doing to his surprise a greater volume of business in dollars and cents than in 1920 but that he was selling to three times as many people as in 1920.

During the past fourteen weeks from July 29 to October 28 inclusive the total involved in contracts awarded and to be awarded exceeds \$313,900,000, of which \$96,271,532 represents contracts actually awarded, and \$217,639,670 is involved in completion of projects initial announcements of which were reported from week to week and many of which have now been gotten underway. The contracts awarded weekly during the above period averaged more than \$6,870,000, compared with the average since February 19 to October 28 amounting to slightly more than \$6,430,000.

Miscellaneous enterprises hold first place in the classification of projects, involving \$70,888,100 in contracts to be awarded and \$23,129,742 in contracts awarded, or a total of approximately \$94,000,000. Roads, paving and bridges rank second in importance considering the amount of money represented by such projects, the total for the 14 weeks covered by the following report for items of this class being approximately \$65,000,000, consisting of \$38,560,424 in contracts to be awarded and \$26,253,128 in contracts awarded. School buildings stand third in importance, the total representing this class of construction being more than \$47,000,000, of which \$13,426,402 is for contracts awarded and \$33,841,500 for contracts to be awarded.

The summarized reports for each of the past fourteen weeks and the classification totals for the same period are as follows:

RECAPITULATION OF CONTRACTS AWARDED AND TO BE AWARDED IN SOUTH FOR PAST FOURTEEN WEEKS.

Compiled from the Construction Department of the Manufacturers Record.

Week Ended.	Approximate cost contracts to be awarded	Approximate cost contracts awarded
July 29	\$ 13,813,500	\$ 6,609,500
August 5	15,552,900	4,759,100
August 12	17,543,614	5,439,360
August 19	13,374,325	5,313,150
August 26	22,506,960	6,149,385
September 2	13,486,800	8,341,330
September 9	10,838,040	6,121,023
September 16	10,783,500	6,705,190
September 23	13,942,700	7,008,739
September 30	16,777,200	8,282,590
October 7	15,382,580	10,672,996
October 14	25,129,085	7,167,943
October 21	12,659,300	7,150,881
October 28	15,849,300	6,540,345
Total	\$217,639,670	\$96,271,532

RECAPITULATION BY CLASSIFICATION FOR FOURTEEN WEEKS.

Dwellings	9,725,600	3,550,813
Apartment houses and hotels	16,496,550	8,969,550
Bank and office buildings	8,177,000	6,482,341
Church buildings	7,914,100	3,642,392
School buildings	33,841,500	13,426,402
Store buildings	5,253,000	3,629,550
Association and fraternal	6,405,000	2,319,000
Roads, paving and bridges	38,560,424	26,253,128
City and county projects	6,837,275	1,095,395
Sewers, drainage and water works	13,541,130	3,773,219
Miscellaneous enterprises	70,888,100	23,129,742
Total	\$217,639,670	\$96,271,532

Moreton Frewen of England on the Foreign Exchange Question and How to Settle It for the World's Good.

Brede Place, Sussex, England, October 2, 1921.

Editor *Manufacturers Record*:

In your article of September 15 there are two letters from Senator Lodge and Mr. Arthur Balfour (later our prime minister), as to which permit me to make an important typographical correction. When referring to the melting up under the Pittman Act of a hundred million ounces of silver and its loan to India, which as Lord Meston, then Finance Minister in India, declared was the only possible way of escape for his Government "from the suspension of specie payments, you substitute for the word *"suspension"* the word *"supervision"* which deprives an all important admission of its meaning. As we were solemnly pledged to three hundred millions of ignorant illiterate folk to convert rupee notes on demand into metallic rupees, to treat this great mass of notes as mere "scraps of paper" would have had the direct results, as the Finance Minister knew and it was that great melting and great loan of silver to India and that alone which saved the silver standard in India and through it the so called "gold exchange standard" here.

I hope this question is to be uppermost for international action at the coming Washington conference, and apart from Mr. Arthur Balfour and Senator Lodge there is a clever Oriental whose counsel President Harding should enlist. I consider that I myself know something of the very involved history of this exchange question on the settlement of which, as I believe, all other exchange and tariff questions hinge, but the Mandarin Tong Shoa ~~is~~ who was the first prime minister for the Chinese republic and was educated by President Murray Butler at Columbia University, really knows all there is to know about this problem, which intimately affects the purchasing power of nearly half the human race.

You in the United States have not yet found what immense importance for the first time we here have begun to attach to the exchange problem of silver. Speaking at Dundee last week that important minister, Mr. Winston Churchill, had this to say (Sept. 25) "Important as the Disarmament Conference was he thought a conference which would establish normal exchange would be quite as valuable, and was certainly more urgent. He hoped the one would develop out of the other."

Tong Shoa, when visiting us here as the special currency envoy of the last Imperial Chinese Government, wrote me a letter which he wished me, under conditions, to bring before the Aldrich Monetary Commission, which was shortly to examine me. I was, I believe, the first witness examined. And it is these long views of the great Pacific exchange problem (the view for which most unluckily my splendid friend Cernuschi elaborated the all too formidable name "Bimetalism") which will require the most careful consideration if we are to secure Mr. Churchill's "normal exchange." In this letter Tong has this to say about the working of the exchanges before 1873:

February 12, 1909.

"Dear Mr. Frewen:

Should you hear any discussion as to the currency attitude of China, pray believe that we hope for, and would in the future work for a universal gold standard; but the Indian system, which is sometimes suggested for our guidance, does not approve itself to our judgment.

May it not be affirmed that the whole world enjoyed a gold standard until thirty-five years ago? Not indeed a gold currency but a gold standard. Certainly we in China as regards our trade with Great Britain and other external trades had a "gold standard". Any merchant in Shanghai who sold silk or tea to England knew that when he sold a bill on London for a hundred dollars he was to receive twenty sovereigns, neither more nor less. There then was the "gold standard" for China, and such steady ex-

change had been ours for half a century and more. Anything that would restore these steady exchanges we would consider, but we see no object whatever in a "gold standard" which, as in the case of India, is dependent on a silver currency managed by a few officials."

Shortly after on my way to Washington I wrote to, or was "interviewed" by the Wall Street Journal upon the subject of Tong Shoa's views. If republished now they would be important; I am not able however, to discover them all these years after. But what I chiefly recall was his assurance that at the then rate of tael exchange no white labor had a chance to compete with Chinese "pig", and for a like reason the western world would be flooded with the soy bean, which could not possibly come over were the tael exchange eight to five gold dollars instead of only three.

If I can discover the last splendid letter Senator Allison ever wrote on "silver" I will include it. It has not hitherto been published. I should also like to put on record Senator Teller as assuring me, though not in writing, that if he thought "free silver at 1 to 16 would result in gold going to a premium," in our currency, he would never urge it.

But I am not going to express my agreement with Senator Teller or I shall involve the discussion in a fresh fierce controversy. President Harding will, next winter, splendidly link it on just where Wolcott and McKinley left it—that is, the two metals permitted "free coinage" at 15 1-2 to 1 at the mints of the United States, France and the Latin Union nations, with a second great group of Asiatic nations to include, I trust, all Africa, mono-metallic silver, a grouping that would secure the parity for a thousand years. This, with a high but varying tariff fence against the many nations outside that monetary union, will bring about fixed exchanges. Without a fixed exchange no tariff, however scientific, offers any protection.

Yours faithfully,

MORETON FREWEN.

Consolidation Coal Company Purchases Large Coal Acreage in West Virginia.

West Virginia coal lands of the Monongahela Power and Railway Co. have been sold to the Consolidation Coal Co., of Baltimore, for approximately \$2,600,000, according to announcement of George M. Alexander, Pres. The property consists of about 2,200 acres, including the Stafford and Rivesville Mine No. 2 and 1900 acres of undeveloped coal lands, and its transfer is one of the most important recent deals in the Fairmont, W. Va., field. As soon as details can be completed the Consolidation Company will take over the operation of the mines, and through a long time agreement coal will be supplied the Monongahela company for operation of its power and gas plants.

The sale of the property will enable the power company to devote its entire attention to its power and railway business, and its revenues to improvements to its plants. The Consolidation Company will now be insured a supply of coal without the necessity of carrying a large investment in coal fields. Besides owning traction lines in Fairmont Clarksburg and several smaller towns, the company owns connecting interurban lines with close to 200 miles of trackage. It will be able to go ahead with extensions in a rich and prosperous section of West Virginia.

Large Contract Awarded for School Building.

Richmond, Va., Nov. 4.—(Special)—The Richmond School Board has awarded contract to A. M. Walkup & Co. for the erection of the Central Junior High School at a cost of \$341,800. It will be a 3-story brick and concrete structure. Chas. M. Robinson is the architect. Heating and ventilating bids were not opened.

Dairy Industry Gaining Notably Throughout the South.

GROWTH OF ICE CREAM MANUFACTURE AS AN INCIDENT IN INCREASED DAIRYING—
SURVEY OF SOUTHERN STATES SHOWING ADVANCES MADE IN DAIRY INDUSTRY DEVELOPMENT

By CRADDOCK GOINS, Atlanta, Ga.

A survey of the dairy industry in the South reveals facts very encouraging to those hopeful for the expansion of this important business pursuit.

A number of factors conspire to draw attention to the dairy business below the Ohio River at this particular time. Cotton conditions, which some years ago drew the minds of the farmers from dairying just when it promised to thrive, now remind us of the vast possibilities it offers as an industry. There is little doubt that the coming months will find more attention to the production of milk, butter and cheese than at any previous time.

In considering the present status of the Southern dairy industry it is most difficult to understand that fifteen years ago it was an enterprise of little note. It is easy to see in present conditions promise of future development that will make the industry in the next few years far surpass any proportion that heretofore was dreamed possible.

Dairying and the production of ice cream go hand and hand. As for the present and future of the dairy business in Dixie it is significant to note that the Association of Ice Cream Supply Men has decided to hold an exhibition of ice cream manufacturing supplies and machinery for the first time in its history. Atlanta has been selected as the scene of this trade classic, which will be held the week beginning November 28. The exhibit will be in connection with the annual convention of the Southern Association of Ice Cream Manufacturers and a number of other ice cream associations. W. M. Sidebottom, of Nashville, Tenn., president of the Southern Association, expects this event to have the greatest influence for good upon the ice cream industry in the South. The Association of Ice Cream Supply Men is composed of leading manufacturers of supplies, machinery and equipment used in modern ice cream plants. Although it has held highly successful exhibitions in virtually every other section of the country, it was not until recently that it took note of the South's growing dairy and ice cream business.

Dairy progress in the South stretches over a span of thirteen years. The outstanding point is not so much the increase in the number of cows as the increase in quality. Advocates of purebred cattle have scored heavily. In a section peculiarly favored for this industry it was difficult to get it started. The farmer was unwilling to take his mind from his broad acres of cotton to give attention to raising cattle. The present point of advancement is due to the farmers who have learned that the two pursuits need not necessarily be separated.

From this start as a home industry strides now are toward dairy development of great magnitude. It is being carried out with widespread cooperation. It was in 1906 that the Southern dairy extension work was begun. It had the cooperation of the Southern farm publications, but there is only one journal in the South published in the interest of the dairy and ice cream industry, "Sweets," Atlanta. The Government and the state agricultural colleges have been most helpful.

Since 1916 there has been a great increase in the number of purebreds shipped in the South. This is due largely to the activities of the 48 bull associations in the Southern states. Now there is much interest in purebred sires.

From recent report it is learned that during the year 1919 approximately 10,000,000 pounds of butter was produced by the ninety-odd creameries in the South. Thirty of the fifty-odd

cheese factories in the mountain sections produced nearly 500,000 pounds of cheddar cheese. It is estimated that there was an increase of over 50 per cent in dairy cattle from 1907 to 1920. No other section of the country has approached this rate of dairying progress. With these facts in mind it is easy to justify the position of those most hopeful for future expansion.

Southerners in close touch with dairying conditions find some disappointment in the failure of the lawmakers to place merit upon quality. In some states we find dairymen who see no urge for quality when they can get just as much money for poor milk.

We can get a better understanding of the dairy situation in the South by taking up the work that has gone on in the different states.

Georgia—In Georgia the only obstacle seems to be the lack of trained dairymen. But every year there is growth in this direction. There is apparent realization that a few hundred thousand good cows scattered over the state would do much to relieve unhappy conditions among farmers today.

In 1918 Georgia was slowly but gradually increasing its dairy herds and particularly the quality of its dairy cattle. It was then that cotton reached 40 cents and many farmers who had made a small beginning in dairy work lost interest. In many instances the cows were sold and butchered. Now we see a new start. Farmers are beginning to understand that there is no section better suited to dairying. It can grow feed the year round.

Increased ice cream consumption is helping. The five-cent cone is a stimulus. In fact, Georgia is rapidly taking front rank in ice cream production.

Florida—The dairy industry of Florida is beginning to assume the place it should "among the many industries of which Florida is justly proud," according to Alfred R. Neilson, of West Palm Beach. Mr. Neilson is prominent in dairy activities.

"Not many years ago," he continued, "it would have been impossible to call for a glass of milk in any of our hotels and expect to be served with it. The can reigned supreme in most of our homes and in nearly all of our hotels and restaurants. Today we can find good wholesome milk served almost everywhere, and the homes are demanding milk."

Blessed with an admirable climate for cattle raising, Florida, by importing better stock, has made rapid progress in dairy development until The Florida Dairy Association, representing the greater part of the leading dairymen, has done a notable work.

Alabama—The excessive rise in food products gave a great impetus to the dairy industry of Alabama. Now many of the farmers are doing a dairy business on a fairly large scale and are finding it profitable. In the Montgomery section about 1,500 gallons of milk are produced daily. Some of this is handled by creameries, where it is turned into ice cream or shipped to surrounding points within a radius of 300 miles. Another part of the milk is marketed as pure cream and is sold in nearby cities.

On account of the advantageous location and railroad facilities, Montgomery is an admirable shipping market. It is in the heart of the Black Belt section, which naturally produces clovers, alfalfa and grasses rich in nitrogen. This enables farmers to produce milk quite cheap.

Tennessee—There are now over 100 licensed ice cream

manufacturers in Tennessee, and the number of milk plants is growing daily. In 1910 there were 373,000 milch cows on the farms of the state, while in 1920 there were 415,000. In the past 10 years the amount produced by the average cow has increased, through better care, feeding and the use of purebred bulls.

In 1918 the cheese factories of the state manufactured 39,920 pounds of cheddar cheese; in 1919, 79,202 pounds, and in 1920, 101,000 pounds. A large increase is expected for 1921.

From present indications the creameries will manufacture in 1921 between 8,000,000 and 9,000,000 pounds of butter, against 6,223,725 pounds, the best previous year.

Nashville is a cattle and dairy section. Since seven years ago, when the Nashville Stockyards handled \$7,500,000 worth of live stock, this industry has grown until now they handle \$90,000,000 worth of live stock.

W. R. Manier, of the Nashville Commercial Club, gives some interesting facts and figures as follows:

"A few years ago it was a rare thing to find a separator in the average farm house. Now the condition is reversed. A few years ago there was no concerted effort to encourage dairy products in the counties in middle Tennessee. Today there is not a county in this section that has not its creamery, and all are doing well.

"A few years ago we were without any manufacturing enterprises looking to the use of dairy products for feeding chickens. Eight years ago we had no ice cream manufacturers catering to other than the purely local trade. Today we have three large establishments shipping ice cream over a wide territory.

"So important has the dairy and live stock interest become that the Chamber of Commerce employs a live stock expert who travels over middle Tennessee giving instruction on the care and raising of dairy cattle.

"There is every reason why the Southern section should be the live stock center of the country. The soil will produce the proper food. The climate is highly favorable. It is a ready-money crop, and can be marketed practically every day in the year."

Kentucky—Farmers of Kentucky have turned to dairying in large numbers in late years. Today dairy products are fast becoming recognized for their true value in the Blue Grass state.

McCracken county is a good example of how dairying is being taken by the farmers of that state. Nearly every farmer in that county has thoroughbred cows and depends upon milk and butterfat to make the money with which to buy groceries, clothes, etc., instead of spending the money derived from tobacco.

Arkansas—Introduction of better stock and the elimination of the fever tick have been the important factors in the growth of the dairy business of Arkansas as in other states of the South. Agriculturalists there are now predicting Arkansas' advancement to a place among the great dairying states of the country. Good prices for milk and the establishing of creameries and ice cream factories have aided the dairy industry here.

Texas—Fort Worth is the center of the dairy industry of Texas. It is served by eleven trunk line railways, with sixteen outlets, and a splendid system of hard-surfaced highways, reaching the greatest dairy counties of Texas. Being located in a densely populated section, it has become an important center for the manufacture of butter and ice cream, with buttermilk as an important by-product. Three large creameries in Fort Worth have an annual production of 3,000,000 pounds of butter.

The annual production of ice cream by Fort Worth manufacturers has doubled in the last five years. The average for the last three years was approximately 1,000,000 gallons.

There are six ice cream manufacturing plants in Fort Worth. The three smaller concerns sell the bulk of their product locally. The other three companies ship about 60 per cent of their ice cream to points within a radius of 200 miles of the city.

The growth of the Texas dairy industry, according to Z. E. Black, of the Dallas Chamber of Commerce and Manufacturers Association, has been the feature of the state's agricultural development in the last few years. Since 1916 the milk supply of Dallas county has been doubled, due largely to the "More Food and Feed Campaign" begun that year by the agricultural department of the Chamber of Commerce. Approximately 500 Holstein cattle, most of them purebred, have been received in that county since 1916. At the outset a revolving loan of \$100,000 was secured at the banks for the buying of cattle by the farmers.

"The first 350 cows imported cost \$150,000," said Mr. Black, after explaining that they were purebred Holstein cattle. "They produce," he continued, "350,000 gallons of milk a year. Dallas county is recognized as the Holstein center of the state, and the sale of young stock has been very gratifying. Milk products were the second most valuable crop in this county last year, ranking next to cotton. There are approximately 16,000 milch cows in the county. There are some who predict that in time the value of milk products produced in this county will equal the county's cotton crop."

Dallas has eight ice cream factories, with a number of other concerns manufacturing ice cream, such as department stores, restaurants, hotels, etc. One new ice cream factory was secured this year, and the Boedeker Company completed and moved into its new \$100,000 plant a few months ago. Sixty per cent of the ice cream production is consumed locally; the remainder is distributed over a wide area. The plants produce approximately 1,000,000 gallons a year.

Large Fruit and Vegetable District Developed on Cut-over Timber Lands

Mobile, Ala., Oct. 17—[Special.]—From a vast waste of cut-over timber lands the section around Atmore, Alabama, fifty miles north of Mobile, on the Louisville and Nashville Railroad, has been transformed into one of the largest vegetable and fruit districts in the South. J. H. H. Hilton, who has been interested in the potato and peach culture there for several years, announces that he will plant 3,000 acres to Irish potatoes the coming winter. He has purchased 30,000 bushels of choice seed potatoes in Michigan for the planting.

In addition to his potato interests Mr. Hilton has several hundred acres in peach trees now just beginning to bear.

He has contracted with farmers in that section for the products of 500 acres of strawberries, 300 acres of snap beans, 300 acres of early sweet potatoes and 200 acres of cucumbers.

Railroad records show that during the past season over 200 cars of peaches, 40 cars of strawberries, 225 cars of Irish potatoes, 27 cars of early sweet potatoes, one car of wool, 13 cars of cotton seed and 1,200 cars of lumber were shipped from Atmore.

\$250,000 Building for Springfield, Mo.

Springfield, Mo., November 12—[Special.]—Bids will be received shortly for the construction of a teachers training building to cost \$250,000, by the Board of Regents of the Southwest Missouri State Teacher College, of which Clyde M. Hill is president. Hawkins & Horner are the architects. The structure will be 60 by 216 feet, of reinforced concrete.

Far Reaching Plans to Perfect Cotton Warehousing System of New Orleans

DOCK BOARD NOW WORKING OUT SCHEME OF OPERATION TO REDUCE HANDLING CHARGES, PREVENT UNNECESSARY LOSSES, CUT DOWN OVERHEAD COSTS AND SAVE TIME AND MONEY TO THE COTTON INTERESTS.

By THOMAS EWING DABNEY, New Orleans.

In reducing the high density compress charge from \$1, to 60 cents a bale, and developing a system of check and counter-check by which any consignment of cotton can be found and delivered without delay, the Board of Port Commissioners of Louisiana, or Dock Board, is seeking to make the plans under which the public cotton warehouse at New Orleans was built some five years ago, come true, and develop New Orleans into the greatest cotton port in the world.

Here is a port facility that was erected at a cost of \$6,125,000; with a theoretical handling capacity of 2,000,000 bales of cotton a year; recognized as the finest cotton warehouse in the world, and with the cheapest insurance.

And New Orleans is the central gulf port—the bull's-eye of the Gulf Coast. It is just as available to cotton shippers in East and North Texas and Oklahoma, as is Galveston, in the matter of freights, and is the natural outlet—still speaking in terms of freight charges—of Louisiana, Arkansas, Mississippi, part of Tennessee and part of Alabama.

The insurance rate is only 24 cents the \$100 per annum. As the plant is public property the charges are fixed to meet only the cost of actual operation, plus enough to pay the five per cent interest on the bond issue, create a sinking fund for retiring the bonds, and leave a small reserve for contingencies. Any private industry would charge up these same items to operation, and add what it could for profit. So the handling charges can be cheaper at the warehouse than at a private plant.

With these advantages, it would appear that the public cotton warehouse would have more business than it could handle, and that New Orleans would be in a fair way to become the greatest cotton port.

Yet last season's receipts of cotton at Galveston were about twice those of New Orleans, while Savannah climbed from a point where she was receiving a little more than half as much as New Orleans to where she received equally as much. Galveston got 100,000 bales of New Orleans cotton. Receipts at Mobile increased 38 per cent, and those at Texas City 223 per cent over the previous year. New Orleans went back 14 per cent.

Last year, Galveston received four and a half times as much cotton as New Orleans, an increase of 45 per cent over her record for the same period for the previous season. New Orleans' receipts for the same period increased only 14 per cent, but the increase was noted in the private cotton warehouses of the city, for at the public warehouse, receipts fell off 44,848 bales, or 29 per cent.

Not only ought the charges at the public warehouse be cheaper than elsewhere, they are cheaper.

The railroad that carries the cotton to New Orleans absorbs the charge of delivering it at the public warehouse. Private warehouses have to pay a drayage of 32 cents a bale. Compressing at the public warehouse is 60 cents a bale, at the private, \$1. For weighing, the public warehouse charges 12 cents a bale, the private, 28 cents. Cotton is put at shipside cheaper from the

public warehouse than it can be from the private. And so on.

Compare the public warehouse of New Orleans with the Terminal Corporation of Memphis.

The handling charge on consigned or factorage cotton, including one month's storage, is \$1.47 a bale at Memphis, and only 92 cents at New Orleans. Subsequent storage is almost half as much in New Orleans as in Memphis. On f. o. b. cotton, that is, cotton sold to arrive, the charges in Memphis run to \$1 a bale, in New Orleans only 80 cents. The average cost of delivery at New Orleans is 25 cents a bale or 35 cents cheaper than at Memphis. If the owner examines cotton at Memphis, for weighing or sampling, it costs him 80 cents a bale, at New Orleans, 24 cents. When cotton is stored flat in Memphis, the charge is 85 cents for a month or fraction thereof; in New Orleans, it is 50 cents cheaper. Memphis charges 45 cents a bale for transferring cotton from one part of the facility to another, for assemblage or storing; New Orleans performs the service free. Memphis charges four cents a pound more for picking over damaged bales than New Orleans.

Yet the Memphis Terminal Corporation has been increasing its business at the expense of the New Orleans public cotton warehouses. So, too, did the private warehouses at New Orleans.

Last spring, a committee from the New Orleans Cotton Exchange drew up a report, saying the trouble lay in the "excessive charges" due to "red tape" and "padded pay-rolls" at the public warehouse.

It is true that the charges are higher than they were formerly. But that is due to the advance in labor. Take for instance the storage charge on a bale of standard cotton. During the 1915-16 season, the charge was eight cents a month, and labor was 20 cents an hour. During the present season, the charge is 25 cents a month, and labor is 60 cents an hour. The tariff has therefore only kept pace with the labor cost. This is the only item in the tariff, as the schedule of charges at the warehouse is called, that has advanced as much as the operating costs. Thirteen of these charges have not advanced at all.

The complete operating expenses of the plant are \$17,625 a month. This will be reduced somewhat in the early future, the dock board announces. The force is larger there than it should be under normal conditions, because of the extra men the dock board must employ in order to check the records and the cotton stored in the warehouse, and establish the new system that will make impossible such confusion as has obtained in the past. Yet the saving which the cotton exchange recommended would amount to only \$40,000 a year, which is just three per cent of the total operating cost, and would not make any appreciable difference to the trade.

Further investigation by the dock board showed that the trouble lay in the duplication of charges, due to the employment of outside labor by the cotton factors to do the work that had already been done by the public warehouse.

For instance, the factors were not satisfied to have the agents of the public warehouse, who are licensed by the cotton exchange, tag, sample and classify the cotton on arrival. Seventy per cent of them had private agents do the work. This meant an additional charge of 26 cents against the bale. They were not satisfied with the reading of the scales by the public warehouse men, but sent in their own men to do it—18 cents more.

Thus the handling charges were run up 44 cents a bale—charges that, in one way or another, were borne by the cotton, and ultimately came out of the pocket of the farmer. No convincing explanation has been given why the cotton factors should provoke this duplication.

The situation was put squarely up to them, and since then there has been a greater co-operation between the cotton people and the warehouses, with greater service and increased economy. Thus is the public warehouse coming into its own.

Under the recently established system of accounting for cotton in the warehouse, it is believed that the tariff for handling the staple can in time be reduced. This, through the saving to the dock board.

Under the former system, there was no centralized responsibility. There was no way of knowing if all the bills payable to the warehouse had been collected, if even they had been sent out. Evidence is not lacking to suggest that they were not. Furthermore, it was like looking for a needle in a haystack to find a consignment of cotton once it had entered the warehouse, and substitution—a practice bad for the trade and costly to the dock board—was extensively practiced.

A statement prepared by the treasurer of the dock board shows that from August 1, 1915, when the cotton warehouse began to do business, to now, the sum of \$132,583.30 has been paid to patrons of the public warehouse to reimburse them for cotton that could not be found when the time for delivery came. It shows that during the same time, the warehouse has found \$59,356.80 of cotton therein, for which it couldn't find the owner. That is a loss of \$37,226.50 to the warehouse.

Nor is this all. There are various claims pending—inherited from the old slip-shod conditions. One, of 127 bales, is for \$20,256.50; one for 27 bales, \$6,850.20; one for 11 bales, \$2,347.16. There is another claim for 49 bales for an amount which can not be stated at the present time, on account of a dispute as to the prices.

This is a specimen of the unsatisfactory service the public warehouse has been performing in the past, for which the people paid the freight. Unsatisfactory service took other forms that reacted against the cotton, such as slow delivery, and delay in unloading cars, thereby incurring demurrage.

The new system of handling cotton at the warehouse is designed to save delay, prevent the loss of cotton, and insure the collection of bills justly owed the facility.

All orders affecting delivery or physical handling of cotton are first delivered to the central office, where proper record is taken and then they are sent immediately to the unit clerks, in charge of the various warehouses, who carry them into effect. The central office keeps in touch with the execution of the orders. All warehouse receipts are surrendered to and controlled by the central office, and verified by it.

Under the former system, there was no central check. Unit clerks kept no permanent records; they received, handled and delivered cotton on their own responsibility, and there was never any means of the dock board knowing exactly where it stood. Delays in delivery were the rule, shortages of bales in any given delivery were offset by substitutions, and in many cases no bills for the service were rendered.

By the new system, and the reduction in prices, al-

ready begun in the case of compress work, the dock board is seeking to develop the volume of business that will cut down the overhead and enable further reductions to be made. This goes home to every farmer within shipping radius of New Orleans. It means just that much more money in his pocket.

New Office Building at Florence, S. C.

Herewith is an illustration of a new bank and office building, recently completed at Florence, S. C. The structure involves

an investment of about \$150,000 and is of fire-proof construction throughout. It is 30 x 90 feet, 7 stories high, accommodating a spacious banking room and lobby on first floor.

The building is owned by the Florence Title, Trust & Investment Co., which is capitalized at \$200,000 and has the following officers: Marion D. Lucas, Pres.; S. I. Sulzbacher, Vice-Pres.;

E. H. Lucas, Treas.; J. B. Aiken, Secy.; Geo. B. Fittz, Trust Officer.

Plans and specifications for the building were prepared by W. J. Wilkins & Co., Wilmington, N. C., and the construction contract executed by Haynsworth & Lawton of Florence.



Increase in Steel Ingot Production.

The monthly production of steel ingots from January, 1920, to October, 1921, as reported by 30 companies, which made 84.20 per cent of the steel ingot production in 1920, is given by the American Iron and Steel Institute, New York, in gross tons, as follows:

Months	Open Hearth.	Bessemer.	All other.	Total.
January, 1920	2,242,758	714,657	10,687	2,968,102
February	2,152,106	700,151	12,867	2,865,124
March	2,487,245	795,164	16,640	3,299,049
April	2,056,336	568,952	13,017	2,638,305
May	2,251,544	615,932	15,688	2,883,164
June	2,287,273	675,954	17,463	2,980,690
July	2,135,633	653,888	13,297	2,802,818
August	2,299,645	695,003	5,784	3,000,432
September	2,300,417	693,586	5,548	2,999,551
October	2,335,863	676,634	3,485	3,015,982
November	1,961,861	673,215	3,594	2,638,670
December	1,687,162	649,617	3,586	2,340,365
Total	26,197,843	8,112,753	121,656	34,432,252
January, 1921	1,591,281	608,276	3,629	2,203,186
February	1,295,863	450,818	2,796	1,749,477
March	1,175,591	392,983	2,404	1,570,978
April	1,000,053	211,755	2,150	1,213,958
May	1,047,810	216,497	1,543	1,265,850
June	808,286	193,644	1,476	1,003,406
July	689,489	113,312	575	803,376
August	915,334	221,116	1,621	1,138,071
September	908,351	265,152	1,207	1,174,740
October	1,269,945	345,837	1,028	1,616,810

A high school building is to be erected in Winston-Salem, N. C., at a cost of \$500,000. The architect is Charles Barton Keen. The new structure will be 268' 6" by 152' 6" and 53' 2" by 71' 4", of reinforced concrete construction with slate, tin and gravel roofing; wood linoleum, tile, cement flooring; direct radiation, fan system heating. Bids, which will be opened November 19 should be addressed to Mayor Jas. E. Hanes.

Remarkable Growth of Arkansas' Oil Industry.

By TOM SHIRAS, Mountain Home, Ark.

Until the first of January, Arkansas was unknown as an oil producing state. Test wells were being drilled at that time in several sections of the state, but except in the immediate sections where they were drilling there was little faith that oil would be discovered. On the 10th of January, the Bussey-Daniels well, in the Eldorado Field, in Union County, blew itself in, with a production estimated at from 20,000 to 30,000 barrels, and in nine months the state has leaped from no production to fourth place among the oil producing states. The last report on production by the United States Geological Survey, in commenting on Arkansas, says:

"Arkansas continued its remarkable gain and in August produced almost as much as Louisiana, it being possible that when complete figures become available the State will have passed Louisiana in rank.

A few days after the first well began to blow, with a gas pressure so strong behind it that it ran wild, defying all efforts to cap it, the writer counted fifteen derricks within the radius of his vision. Literally hundreds of teams were dragging timbers and drilling machinery to new locations, and the sidings of the two railroads entering the town of Eldorado were blocked. The field which was uncertain then, is now seven miles long and two miles wide, and seemingly has no limit. It is already four times as large as the Homer Field in Louisiana, and new wells are being brought in daily. Besides the 280 oil wells, which have a daily production of from 100 to 8,000 barrels each, fifteen big gas wells have been brought in that average from one to twenty-five million feet a day.

There has been no slow-down in operations from the first, even the low price of oil during the summer having little or no effect on operations. At present there are one hundred and fifty wells drilling, and eighty-five locations made which will have derricks up in a short time.

There has probably not been a field developed in the United States that is any more substantial or has a better foundation for a long life than the Eldorado field. It has passed through the mushroom stage and has stood up. Hundreds of new buildings of all kinds are being erected in Eldorado, and it is drawing many new industries besides those connected directly with oil.

The First National Bank of Eldorado is building a new home; the postoffice department has awarded the town a new postoffice which will have 1000 more boxes than the

old one; the American Express Company has lately completed a new building; the Arkansas Light and Power Company has added \$150,000 to its holdings there; four new refineries have started operation, which now makes six for the field; a new \$20,000 school building for the town was completed last month, and the Bell Telephone Company has strung over six miles of cables and rebuilt their entire plant.

The reputation of the field has been built largely on production which is now running approximately 72,000 barrels a day. The gravity tests of this oil range from 18 to 37.5 at 60 degrees. The gasoline content averages 25 per cent. The gasoline content from the gas wells runs from one-half pint per 1000 feet to two gallons.

The first nine months development in the field represents an investment of something over \$6,000,000 for drilling, completions and leases, according to estimates. It is said that the largest transaction made in the field was when the Standard Oil Company acquired a half interest in 9000 acres from the Constantin Company, the consideration being over \$2,000,000. The larger companies operating in the field are the Standard of Louisiana; Shreveport Producing and Refining Company; Magnolia; Pure; White; Gulf; Palmer Trust, of Chicago; Constantin; Arkansas Natural; and Southern Oil Corporation.

To date the entire production of oil in the State has come from the Eldorado field. It is very probable however, that within the next few months other fields will be brought in, because wildcat operations are in progress in practically every county in the state. In some of the counties operations have not progressed any further than taking leases; in others drilling is underway. A recent recapitulation of the number of wells being drilled in wildcat territory outside of Union county, showed 175. Since that time some of these have come in dry, but others have been started, and the total as given above is approximately correct at this time. But if none of these develop production, Arkansas has a great field in the Eldorado field.

Charles M. Dunning Construction Co., of Oklahoma City has been awarded the contract to build a 7-story structure, 50 by 100 feet costing \$250,000 for the Oklahoma Club. It will be of reinforced concrete, brick and stone, with a tar and gravel roof, and erected after plans by Hawk & Parr, architects.

VIEW OF HARBOR FRONT AT WILMINGTON, N. C.



Shows U. S. Customs Building, one of the finest in the country, erected at a cost of \$650,000. This structure houses also the Coast Guard Service, Engineering Department and Federal Court. Wilmington ranks eighth in customs receipts, around \$30,000,000 annually.

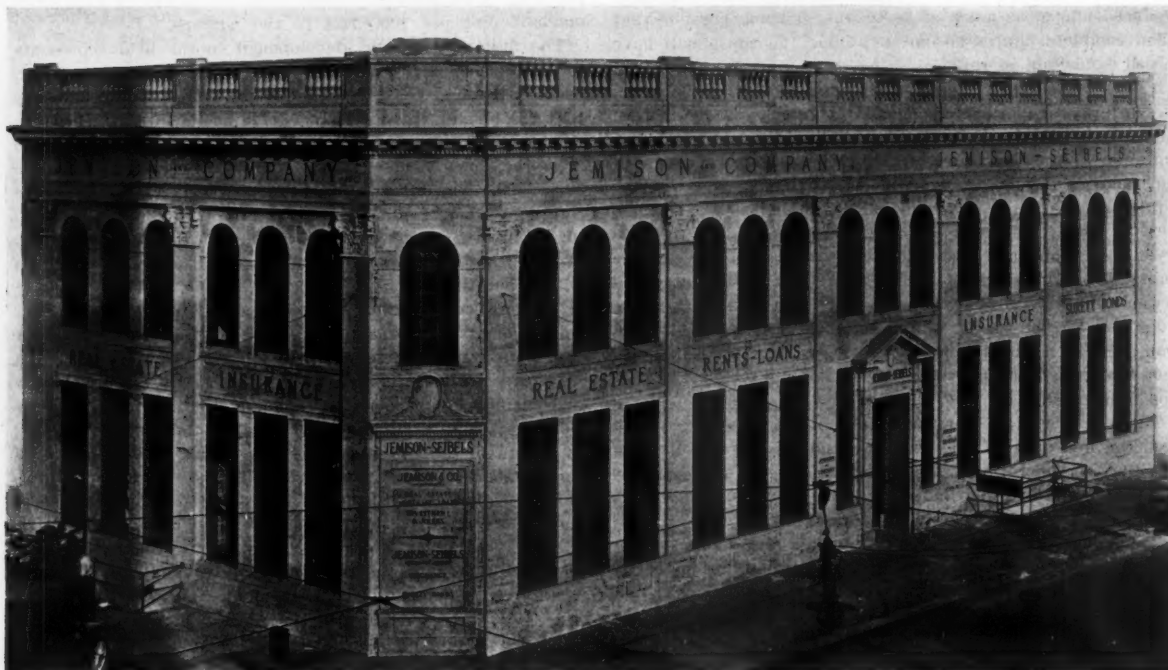
Marked Activity in Home Building in Atlanta.

Atlanta, Ga., November 12—[Special.]—The house building activity that has prevailed throughout the year here has not abated, and during four days of this month more than \$100,000 in permits were issued, practically all of this being for residences. During the past ten months the dwelling permits issued total 1,123. The valuation of permits in October exceeded \$1,000,000. Building materials and lumber men say that now is an advantageous time to build, because of the available supply of materials and encouraging prices.

New Gas Well in Terrebonne Field.

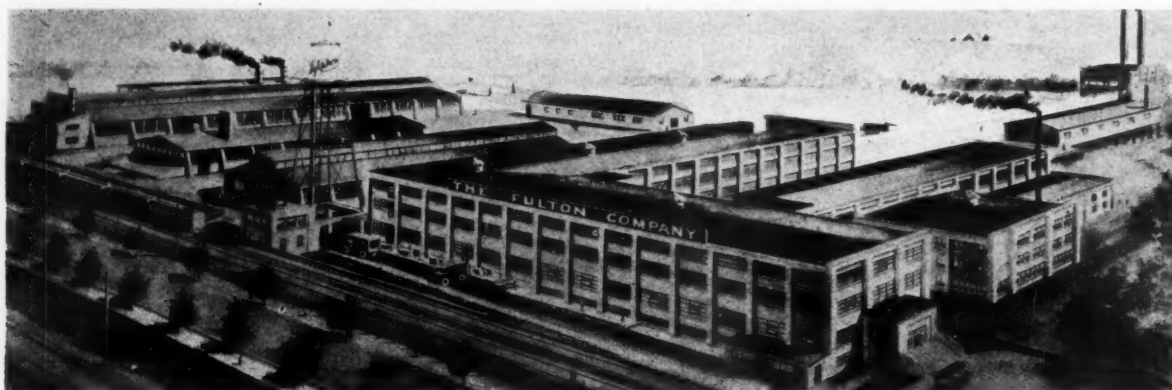
Houma, La., Nov. 8—[Special.]—The proven area of the Terrebonne gas field has been materially extended by the bringing in of a new well about a mile and a half north of the McCormick discovery well. The well has an estimated open flow capacity of ninety million cubic feet of gas per day. It is the property of the Terrebonne Oil and Gas Company, a corporation controlled by W. B. McCormick and associates of Shreveport. This company is now supplying gas to the city of Houma and the sugar refineries and factories in this section.

NEW JEMISON-SEIBELS BUILDING AT BIRMINGHAM.



New building recently completed for Jemison & Co. and Jemison-Seibels Insurance Agency, formally opened on August 29. Erected with special attention to the requirements of the owners; size 100x50 ft.; 2 stories; Italian renaissance architecture; reinforced concrete; fire-proof safety vault; lobby finished in Tennessee marble and hardwood. Warren & Knight of Birmingham are the architects and Smallman-Brice Construction Co., also of Birmingham, is contractor. The cost of the site, building and equipment was about \$250,000.

THERMOSTATIC INSTRUMENT PLANT OF THE FULTON COMPANY, KNOXVILLE.



The above plant is built of reinforced concrete and is three stories in height. It has a floor space of 250,000 sq. ft. Recent additions and improvements make it the largest plant in the world devoted to the manufacture of temperature controlled instruments, says the Fulton Company. It is modern throughout. Hydro-electric power is used to operate the machines.

Rebuilding the South's Peanut Industry, Nearly Destroyed by Oriental Importations, and the Need of a Protective Tariff.

By C. A. WHITTLE, Atlanta, Ga.

On November 27 of this year the Emergency Tariff applying to peanuts will expire. The Fordney tariff bill is proposing to continue the same protection afforded by the Emergency Tariff, and it is certainly to be hoped that Congress will see fit to continue the Emergency Tariff until a permanent tariff is enacted.

The lack of a tariff brought the peanut industry of the United States to grief. The present measure has not been in force long enough to re-establish peanut growing on a going basis, and unless the tariff is continued it would hardly be worth while to undertake to build up the peanut industry.

The growing consumption of vegetable oils, that reached its peak during the war period, set the peanut-growing on foot in the lower South and brought it rapidly forward.

Following the war, there came a deluge of peanut oil from the Orient that surged from the Pacific coast across the continent. The Southern cotton farmer, struggling out of the adversities of the boll weevil invasion, had found in peanuts a ray of hope; when, suddenly, the yellow tide befell him. Since then the peanut-grower of the South is not an anti-protectionist—at least, not with reference to peanuts.

It may be pertinent to explain why the peanut industry grew up without tariff protection and must now have protection in order to survive.

There are two main reasons. The United States is now the best buyer in the world, and, second, strong trade connections have been established which came into existence to handle oriental oils before the United States growers could equal the local demand, and which connections continued to function when American peanut growers came to be more nearly equal to the demand.

The invasion of peanuts and peanut products has been largely from China and Japan, through Pacific ports. With the purchasing power of the oriental nations, also including Europe, greatly impaired, the open door of the United States was the most attractive to the peanut dealers of Japan. Trade connections had been established on the Pacific coast leading into mercantile channels throughout the country. Everything was set for the invasion.

When the embargo was lifted in 1920 it came with irresistible force that carried beyond the Mississippi river—which hitherto had marked the extent of its invasion—and ended only at the Atlantic, with a total distribution of 165,000,000 pounds of oil, almost as much peanut oil as the United States could have produced from all the nuts grown for oil purposes.

But that was not all. Over 132,000,000 pounds of shelled and unshelled peanuts came in. Previous to the war only about 15,000,000 pounds were coming in, but during the war the imports grew, especially in shelled nuts. In 1913 the imports of shelled nuts was 2,627,475 pounds, but in 1920 it was 120,344,425 pounds.

The increasing importation of peanuts and peanut oils has, of course, operated to reduce the acreage devoted to peanuts in this country.

In 1917 the acres devoted to peanuts in this country were 1,842,000; in 1918 they increased to 1,865,400, but from then on there has been a loss. In 1919 the acreage was 1,251,400; in 1920, 1,268,400 and in 1921, 1,193,000.

It may be a matter of surprise that the acreage has not decreased more. If the American demand for peanuts for oil purposes had governed entirely, there would have been a much greater decrease, but fortunately peanuts are excellent food for hogs, and much of the acreage planted in the lower South is designed for hog pasture.

The confectionery nut-growing industry, such as is de-

veloped in Virginia and North Carolina, while suffering heavily from foreign competition, is better established and has not had to encounter the extreme competition of the oil-growing nut industry, such as exists in Georgia, Alabama and Texas.

The present tariff is three cents a pound on shelled and unshelled peanuts. The peanut industry is asking for four cents. It is estimated that the cost to produce peanuts in Japan is 1 1-2 cents a pound, whereas it is estimated that it has been costing the American farmers on an average of seven to eight cents a pound to produce them.

The freight on Japanese nuts to America is less than 1 cent a pound. If a tariff imposes 4 cents at port the oriental nuts will land at Pacific coast points at less than production cost in this country, but when the cost of distribution to consuming centers of this country is taken into account, perhaps the oriental nuts will have no distinct advantage.

In the matter of railroad rates from the Pacific ports to Eastern points, the advantage is with the foreign nut as compared to domestic nuts shipped westward. A hundred pounds of nuts from Pacific coast points can be shipped to an Eastern point at a cost of \$2.00, whereas 100 pounds of nuts shipped over the same route from the East would cost \$2.75.

The lower South is desperately in need of money crops to utilize the cotton acreage which the boll weevil has rendered idle. Peanuts are gaining favor until the oriental oils were dumped upon this market.

Facing the coming crop year, farmers and students of Southern agriculture realize as never before the terror of the boll weevil and the utmost necessity of growing other crops along with cotton. Shall peanuts be one of the crops? No one would spend much time urging the cotton farmer to put peanuts if there were a probability of the tariff on peanuts being lifted.

But if peanut growing is fostered by protection, there will be a great impetus given to it. The oil mills that will have less cotton seed to crush will find more peanuts available. A more stable form of agriculture will follow and the South will be stronger.

World's Production of Coal in First Half of 1921.

The world's production of coal during the first six months of 1921, according to reports collected by the United States Geological Survey, was approximately 525,300,000 metric tons. This was at an annual rate of 1,050,000,000 tons, a decrease of 250,000,000 tons when compared with the year 1920, and much below the output in any year of the preceding decade. The largest factors in this decrease were the British miners' strike, which lasted from April until June, and the world-wide industrial depression. The reaction has been in striking contrast to the active demand of 1920. Prices have collapsed, and seaborne coal trade has fallen off, affecting profoundly the volume of business offered to the world's shipping.

It is clear that the output during the second half of the year will be larger than in the first half because of the resumption of work at British collieries early in July. Even so there is little hope that the total for the year will much exceed 1,100,000,000 tons. Should that prove to be the case the world's production will have dropped back to the level of 1909. There is perhaps no more striking evidence of the state of prostration of world trade and industry than this fact. The relapse to 1909 levels is even more significant when it is remembered that the world's consumption of coal normally increases very rapidly. The average rate of increase in the

20-year period preceding August, 1914, was 38,000,000 tons a year.

Of the principal coal-producing nations, Germany made perhaps the best showing in the first half of 1921. Production of bituminous coal in all districts, including Upper Silesia and the Saar basin, was at the rate of 141,000,000 tons per year, far short of pre-war performance, but the output of lignite showed an increase over 1913 amounting to almost 30,000,000 tons a year. Whereas in 1913 the German Empire supplied only 22 per cent of the world's production of coal and lignite, its contribution in the first half of 1921 was 25 per cent of the whole and this in spite of the return of Alsace-Lorraine to France.

The proportion contributed by the United States was 42.2 per cent, a larger share than in pre-war days, but a smaller share than in any year since 1916.

The following table summarizes the information received by the Geological Survey up to and including October 6, 1921, and is subject to revision as final official figures are received. Lignite and brown coal are included; where possible, they are given separately. The world total of 525,300,000 includes estimates for those countries, representing about 8.5 per cent of the whole, for which no information was available. The figure used for these unknown countries was one-half the output of the latest year for which figures were obtainable, usually 1920.

PRODUCTION OF COAL IN PRINCIPAL COUNTRIES OF THE WORLD, JANUARY-JUNE, 1921.
(In metric tons of 2,204,622 lbs.)

Country.	Production.	Per cent of total production.
NORTH AMERICA:		
Canada	6,153,456	1.18
United States	221,798,000	42.23
Other countries	(*)	0.06
SOUTH AMERICA:	(*)	0.13
EUROPE:		
Austria—Coal	65,320	0.24
Lignite	1,181,920	
Belgium	10,624,740	2.03
Czechoslovak Republic—Coal	6,100,000 †	3.61
Lignite	12,900,000 †	
France—Coal	13,467,125	2.64
Lignite	371,930	
Germany—Coal	70,886,889 §	24.88
Lignite	59,787,867 §	
Poland	3,500,000 †	0.67
United Kingdom	55,349,730 †	10.54
Other countries	(*)	2.83
ASIA:		
Japan	12,800,000 †	2.44
Other countries	(*)	4.11
AFRICA:		
Rhodesia	242,809	0.04
Union of South Africa	5,100,000 †	0.95
Other countries	(*)	0.01
OCEANIA:	(*)	1.41

TOTAL

(*) Estimate included in total. (†) Estimated for the six months' period from actual reports for the first three or four months.

(§) Includes Saar and Upper Silesia.

School Building Contracts Awarded at \$434,832.

A contract for the erection of two schools costing \$434,832 has been awarded by the Board of Education, Durham, N. C. to Salmon, Shipp & Poe of Durham. The two structures a high school 265x145 feet and a colored school 136x233 feet, will be of concrete and brick, hollow tile, composition flooring and Barrett specification and slate roofing. The architects are Milburn, Heister & Co., Washington, D. C.

Contract Awarded for \$400,000 Convention Hall.

Enid, Okla., November 12—[Special]—Contract has been awarded Bass & Frankenfield of this city for the construction of a convention hall costing \$400,000, according to R. T. Williams, city clerk. It will be 122 by 232 feet, of brick and concrete construction, after plans by Layton-Smith & Forsyth, architects, of Oklahoma City.

Alabama Power Co., Gets Temporary Lease of Government's Sheffield Steam Plant.

Washington, November 12—[Special.]—Secretary Weeks has leased the government 90,000 H. P. steam power plant at Sheffield, Ala., which is a part of the Muscle Shoals development for which Henry Ford is now negotiating, to the Alabama Power Co., for a short period owing to the severe drought that has handicapped operation of cotton mills and other plants in the section. The lease was made only because of the emergency and subject to the right to terminate the contract at any time on 30 days notice, so that the Government is protected in the event of a sale of the property.

The plant, which is now idle, will be operated by the Alabama Power Co. in the interest of the power companies in the states of Alabama, Tennessee, Georgia, and North and South Carolina. The power will be transmitted over the lines of the Alabama company to the systems of the other companies, all of which are interconnected. The acute situation caused by the drought, resulting in closing of many mills and operation on part time by others, was relieved to some extent by transmitting power from one system to another, and in some cases it was transmitted through the inter-connected companies a distance of over 400 miles.

Results of a Full Year on the Railroads Under Private Control.

A statement authorized by the Association of Railway Executives, referring to an analysis of railroad statistics just compiled by the Bureau of Railway Economics for the twelve months period ending August 31, 1921, (the first full year since the general rate advance of August 26, 1920), says that the net railway operating income for the year represented a return of only 2.9 per cent on the investment, or less than half of the 6 per cent return contemplated by the Transportation Act and the Interstate Commerce Commission's decision advancing the freight and passenger rates. The net operating income totaled \$530,000,000, or \$571,000,000 less than what a 6 per cent return would have been. In September last year the net operating income was 4.1 per cent and in October 4.6 per cent, but then it steadily declined until a deficit showed in January, 1921, with a still larger deficit in February. Then income began to increase and in August of this year it was 5 per cent. In no month did it reach 6 per cent.

The total operating revenues of the Class 1 railroads during the twelve months period under consideration were \$6,045,338,100, an increase of \$320,425,835 or 5.6 per cent, as compared with the equal period immediately preceding it. Freight revenues increased 9.6 per cent and passenger revenues 2.8 per cent. Total operating expenses were \$5,161,760,829, a decrease of \$218,876,981, or 4.1 per cent, and the net operating revenue was \$883,577,271, an increase of \$539,302,816, or 156 per cent, but taxes took of this \$283,331,368, (an increase of 10.4 per cent), leaving the net operating income \$530,655,927, as compared with only \$28,548,077 in the preceding year that was under the United States Railroad Administration. Moreover, the proportion of expenses to earnings or operating ratio was reduced to 85.38 per cent as compared with 93.99 per cent for the previous year.

The data shows that although expenses were not reduced in proportion to the decrease in traffic the railroads were able to economize sufficiently to keep expenses lower than the year before in spite of the 22 per cent wage increase of wages given by the Labor Board in 1920.

NEWS AND VIEWS FROM OUR READERS

[Publication in this department of letters from our readers does not mean that we either approve or disapprove the views expressed. We believe in a full and frank discussion of the mighty questions of the hour, for only in this way can the truth be found. Therefore we often publish letters with which we do not agree.—Editor Manufacturers Record.]

How Furniture Prices Have Declined.

A. D. WITTEN, President, American Furniture Company,
Martinsville, Va.

We notice that Senate Resolution No. 127, providing for an investigation of prices of house furnishings, introduced by Senator Kenyon was passed by the Senate.

We understand that this resolution requires the Federal Trade Commission to investigate the principal manufacturers, the wholesale and retail prices of manufacturers dealing in house furnishings. It is understood that the demand for this investigation originated with the Federation of Farm Bureaus, which holds that the prices of building materials, lumber, and house furnishings have not responded to the general deflation.

I am led to believe that the desire to investigate the prices of house furnishings is due largely to incorrect reports so far as the furniture manufacturers are concerned.

At the peak of all prices last year we were making a number of bed-room suites, some of which we still have in stock. Taking the figures from June, 1920 and September, 1921, we have the following result:

	June 1920 Prices	Present Prices
No. 3600 Mahogany Dresser	\$85.00	\$45.00
" " " Chiffonier	75.00	34.00
" " " Dressing Table	68.00	27.00
" " " Bed	65.00	29.00
No. 3600 " Bow Bed	80.00	37.00
Total	\$373.50	\$172.25
No. 1100 Walnut Dresser	48.50	26.00
" " " Chiffonier	42.00	20.00
" " " Dressing Table	42.00	20.00
" " " Bed	48.50	23.25
No. 1104 Bow Bed	60.00	29.00
Total	\$241.00	\$118.25

In the case of the higher-priced suite, the reduction is more than 130 per cent and in the case of the cheaper suite, the reduction is more than 125 per cent.

I believe similar reductions have taken place all along the line with the manufacturers of wood furniture, and that many manufacturers are now selling at prices below the cost of replacement.

The facts are the furniture manufacturer has never made more than a living profit, therefore, if the prices to the consumer of house furnishings have not come down with other commodities, the fault cannot be laid at the door of the furniture manufacturer, and we welcome the investigation.

New Development Projected.

J. D. STONE, President, Nansemond Industrial Corporation,
Norfolk, Virginia.

I have been a constant reader of your valuable paper for several years, and am in hearty sympathy with your entire policy. During the past I have read many good articles, and have thought several times of writing to congratulate you, but have never gotten around to it, but after reading the article from the country banker on the front cover of your issue of Oct. 13th I cannot put off writing any longer to tell you how much I appreciate the wonderful amount of good you are doing for the South.

About ten years ago, realizing the importance of developing the South I commenced operations here in Norfolk, and have been reasonably successful with various phases of real estate development work, which has gradually led up to our present project, which I truly believe is the biggest development proposition of its kind in the South. About a year ago we purchased 3800 acres of land between Norfolk and Suffolk,

and have since taken additional acreage, which gives a total of 4100, bounded by the Seaboard Air Line, the Virginian, Atlantic Coast Line, and Southern Railroads, and within a mile and a half of the Nansemond River, and one half of a mile from the Norfolk & Western Railroad. The high tension electric line from Richmond to Norfolk faces our property, and so does the Portsmouth and Suffolk water main. Norfolk is putting in a new water main, which is about a half mile from our Norfolk boundary.

Thus you will see that we have a splendid location, well served with all the railroads in our district, and having plenty of facilities for water and power.

Building operations have already commenced, and we have just closed a contract with a competent saw mill company, who will cut our timber, of which we have sufficient for a thousand homes. This material will be supplied to our own people on the property at prices considerably below the market, and eventually we hope to make this a self-supporting community. We have the location, railroad facilities, water, timber and concrete roads. What we need now is publicity that will enable us to carry out our financial arrangements.

Commercial Secretary Wanted.

Dr. P. H. Jones, Moore Haven, Fla.

As chairman of our publicity committee, I ask you please to make note of the fact that the Moore Haven Commercial Club is without a secretary and we would be pleased to consider applications for the position.

Want Canning Factories Established.

E. I. REARDON, Manager-Secretary, The Sumter County Chamber of Commerce, Sumter, S. C.

Having read your paper for many years and knowing what a friend to the Southern farmer you are, I want to ask you if you can not give publicity to the importance of outside capital and experience coming in to help the farmers of the South, in boll weevil infested territory, to market the surplus farm products which they are being told to produce.

For instance, in this county of Sumter, and in the adjoining counties of the Pee Dee and Eastern Carolina sections, where cotton with tobacco has been practically the entire cash crop. Sumter County has been producing from 45,000 to 65,000 bales of cotton annually, average about fifty thousand bales. This year the boll weevil has reduced our cotton crop to, estimated, less than 20,000 bales. Tobacco prices are so low that farmers made no profit for the past two years—lost money.

We want to establish a canning factory to handle sweet potatoes, and numerous truck products. Will it not pay some of the big canning factories of the country, around Baltimore especially, to establish plants in Sumter and adjoining counties to use up the products of the inevitable diversified farming which must and will start on our farms immediately: Down here in South Carolina we can grow almost any kind of food products abundantly and economically—and we can also raise thousands of hogs, poultry, truck of all kinds, fruits, etc. But the marketing problem is what gets us. We believe that a canning factory will induce hundreds to produce raw material for such an enterprise. We can get local capital and working cooperation to go with outside capital and experience in operation and business management, and in the selling department.

THE IRON AND STEEL SITUATION

Heavier Consumption of Steel Going on Than is Generally Understood.

Pittsburgh, Pa., November 12—[Special.]—Production of steel ingots in October was at 44 per cent of capacity, against about 33 per cent in September and 21 per cent in July. Thus production increased by one-third from September to October and more than doubled from July to October.

These large increases were not due to there being large increases in ultimate consumption, but were due chiefly to the liquidation of stocks of steel and of manufacturers of steel prior to October, causing a temporary dip in demand upon mills. Liquidation is now complete, or indeed more than complete, for while there may be some stocks here and there the average buyer has less stock than normal.

The consumption of steel is really very fair, except in certain spots, one trouble with the situation being that the fact is not realized. The general line consumption of steel, is greater per capita now than in 1906, which was the best year for the steel industry in its whole history, barring the war years and perhaps 1920. Production of steel ingots in October was at the rate of 23,000,000 gross tons a year, while production in 1906, with all the existing mills running at their very best—there were no labor shortages coke shortages and traffic blockades then—was 22,624,431 tons. In 1906 about 6500 locomotives and 225,000 freight cars were built in the United States and 5623 miles of new railroad line, apart from secondary track, and many skyscraper hotel and office buildings, power plants and factories were built. While the consumption of steel along those lines is now very light in other lines it is correspondingly greater than in 1906, easily more than half again as great, perhaps even double, while the population has increased by less than one-fourth.

That the railroads are wearing out at a greater rate than before the war is shown by their freight ton-mileage statistics. Last August, just reported on, showed a ton-mileage only 29 per cent less than that of August, 1920, which was the record month of all time, and the rate last August was 10 per cent greater than the average rate in the best railroad year before the war.

The steel market having been quieter in the past three weeks than formerly, the rate of operation is likely to decrease somewhat in the next few weeks. This would be a seasonal movement, as steel consumption is normally lighter in December and January.

The Steel corporation made further substantial progress in October in converting its unfilled obligations, which are largely contracts, into actual shipments, as the unfilled tonnage decreased 273,841 tons, to 4, 286,829 tons at the end of the month. The decreases was equal to 20 per cent of capacity, while shipments were about 44 per cent of capacity, indicating that strictly new business was booked to the extent of about 24 per cent of capacity, this comparing with 36 per cent for September and only 5 to 10 per cent in each of the six months preceding.

Steel prices continue to exhibit a slight sagging tendency, such as might carry the average down at the rate of 25 to 50 cents a ton per week. The period of big declines ended last July, prices now being more than \$30 a ton under those of 1918.

Pig iron continues dull, with prices not quotably changed, Bessemer being \$20, basic \$19 and foundry \$21 f. o. b. valley furnaces. Connellsville coke has weakened in price, through ovens having been blown in too rapidly, and some ovens are now being put out. The market stands at about \$3.10 to \$3.25 for prompt furnace coke and \$4.25 to \$4.75 for prompt foundry.

Buyers Holding off Slightly at Birmingham.

Birmingham, Ala., November 14—[Special.]—A few sales of pig iron have been made the past week and the negotiations in hand indicate that consumers are holding off from the market a little, anticipating either further reduction in price or cheaper freight rates or a desire to pass inventory time with small stock on hand. The weakening of the iron market in the Birmingham district will hardly continue very long, according to some of the best authorities, and no prospect is announced of sales for a large amount of the product while the price is off, sales having been made at \$18.50 per ton, No. 2 foundry, 1.75 to 2.25 per cent silicon. The general quotation is still given at \$19 per ton, but concessions are admitted and fifty cents under this price is what is heard, with reports that a larger amount is probable. Where possible, all pig iron that can be delivered is being shipped, not the least difficulty being experienced in getting cars and starting the movements.

Production of pig iron in Alabama is being maintained at the pace that was set in October—over the 100,000 ton mark. During the first two months of the year this state produced more than 100,000 tons the month. There was a gradual drop until less than 67,000 tons were reported. This was in July. Then the turn for the better started in and in October went a little above the mark named. Local consumption of pig iron has been strong and though it is late in the season for some of the industries, cast iron pipe, for instance, there is still much of the product being melted.

The steel industries in this district continue in operation at a steadily improving pace, the Gulf States Steel Company now operating on more than a 70 per cent capacity and the big Ensley and other mills of the Tennessee Coal, Iron & Railroad Company and other subsidiaries of the Steel Corporation are producing on a 50 per cent schedule. There is an active demand for rail, wire and wire products. Railroads are beginning to order rails for delivery during 1922 and some export business is in sight for the plants of the Steel Corporation subsidiaries in this district. Presence in the district for a few days of A. T. Barberini, representative of the United States Steel Products Company, the export subsidiary of the Steel Corporation, headquarters in New York, is taken to have significance and announcements will follow, it is believed, that some big export business will be placed in this district.

Considerable interest is shown now in the proposed reduction of freight rates. Much is expected of the concession to be given on fabrication in transit privileges by the railroads and other modification, of transportation charges.

The coal production in Alabama is improving right along and the output reached within 15,000 tons of the normal production figures recently. There is a little demand yet for coke and production is being kept up. Prices show but little change, foundry coke being held at \$5.75 to \$6 and furnace coke around \$5.

The scrap iron and steel market has again assumed a drooping state, the lull being pronounced. Quotations follow:

PIG IRON.

No. 2 foundry, 1.75 to 2.25 per cent silicon, f. o. b. furnaces, \$18.50 to \$19.00; No. 1 foundry, 2.25 to 2.75 per cent silicon, \$19.00 to \$19.50; iron of 2.75 to 3.25 per cent silicon, \$19.50 to \$20.00; iron of 3.25 to 3.75 per cent silicon, \$20.00 to \$20.50; iron of 3.75 to 4.25 per cent silicon, \$20.50 to \$21.00; charcoal iron, f. o. b. furnaces, \$35.00.

OLD MATERIAL.

Old steel axles.....	\$15.00 to \$16.00
Old iron axles.....	17.00 to 18.00
Old steel rails.....	12.00 to 13.00
Heavy melting steel.....	11.00 to 12.00
No. 1 R. R. wrought.....	13.00 to 14.50
No. 1 cast.....	16.00 to 17.00
Stove plate.....	15.00 to 16.00
Old car wheels.....	12.00 to 14.00
Old tramcar wheels.....	11.50 to 12.00
Machine shop turnings.....	4.00 to 5.00
Cast iron borings.....	4.00 to 5.00

RAILROADS

\$6,160,000 LOCOMOTIVE AND CAR CONTRACTS.

Southern Pacific System Buys Fifty Engines and Illinois Central 1,000 Cars—Other Car and Rail Orders Pending.

Southern Pacific System has ordered 50 locomotives of the Santa Fe type from the Baldwin Locomotive Works, Philadelphia. The contract approximates \$3,500,000 in value and makes the total value of orders received by this manufacturer during October \$10,000,000 including contracts from foreign countries. Although placed last month the Southern Pacific order was not announced until details were completed.

John T. Cochrane, president of the Alabama, Tennessee & Northern Railroad Corporation, Mobile, Ala., has just announced having closed contracts with the Mount Vernon Car Manufacturing Co., of Mount Vernon, Ill., for 300 standard freight cars and with the Lima Locomotive Works, of Lima, Ohio, for 2 consolidation locomotives of 75 tons each to take care of the increasing business on the line.

Illinois Central Railroad has ordered 650 refrigerator cars from the Haskell & Barker Car Co., Michigan City, Ind., and 350 of the same kind from the General American Tank Car Corporation, Chicago, all to cost \$2,600,000. This railroad is also reported in the market to purchase 2,000 composite gondola cars which will cost approximately \$4,000,000.

The municipality of Miami, Florida, has ordered 8 new cars for the city street railway, which is to be leased for operation to the Miami Beach Electric Co.

Pennsylvania Railroad and the Norfolk & Western Railway are contemplating placing orders soon for rails to be delivered next year—about 150,000 tons and 40,000 tons respectively.

The City Commission, Tampa, Florida, will purchase about 128 tons of 70 pound steel rails; also fittings for them, spikes, etc.

Sale of Georgia Railway Authorized.

R. B. Pegram, of Atlanta, receiver of the Hawkinsville & Florida Southern Railway, has been authorized by the Interstate Commerce Commission to abandon the property, the Superior Court of Bibb County, Ga., having decided that further operation would be useless and wasteful. The line, which is 95 1-2 miles long from Hawkinsville to Camilla, Ga., via Ashburn, Sylvester and Bridgeboro, is first to be offered for continued operation, and if no satisfactory bid is made, then it is to be put up in sections also to be operated, and finally, if no satisfactory bid is received for any section, it is to be put up for sale in sections or as a whole to be scrapped.

Status of Railroads and the Revolving Fund.

A statement issued at Washington shows that only \$63,661.000 of the \$300,000,000 revolving fund provided for the railroads remains unborrowed by various lines. Of course some loans have been repaid, for the aggregate borrowed up to the present time is \$257,444,217, but \$21,105,217 has been repaid, leaving the balance herein noted.

It is further stated that railroads have obtained advances amounting to \$262,590,874 on the money owed to them by the Government, which also owes them on open account about \$650,000. This will be paid as speedily as adjustments can be made and all claims thus settled.

Extensive Railroad Improvements Around the Crescent City.

New Orleans, La., Nov. 7.—[Special.]—Railroad enlargement and reconstruction of facilities in New Orleans and vicinity, costing a total of about \$6,500,000, will be undertaken by the Louisville & Nashville Railroad Co. within the next six months according to President W. L. Mapother when here several days ago. The work includes increase of freight yard facilities at New Orleans and Gentilly to cost respectively \$942,000 and \$182,000; rebuilding the Rigolets and the Chef Menteur bridges at a respective cost of \$2,999,000 and \$1,149,000, and also the reconstruction of the Bay St. Louis and Biloxi trestles.

"We are working to develop the Gulf Coast," said President Mapother, "and have spent for it 54 per cent of our total advertising fund. We contemplate extensive magazine advertising but there are not enough hotels and boarding houses for the people and the railroad company is prohibited by law from erecting them. The business men of the section should induce capital to do this work.

"Railroad rates are enormously, atrociously high," continued Mr. Mapother. "They must come down; every railway executive realizes that. They are high because men in office sought to regulate business by statute; this principle is wrong and cannot work. It destroyed initiative and resourcefulness which developed the greatest transportation system in the world and we won't be able to progress until we repeal stultifying laws and get back initiative and resourcefulness.

"The cost of labor is to blame for the high rates. I believe in the eight hour day, but when it is used to pry up the total compensation without giving efficiency, and organized labor takes the country by the throat, it is time to call a halt. It was not a settlement we recently had at Chicago; it was an abject, cowardly surrender to the unions, the Great American Crime No. 2, the Adamson Law being the first.

"Freight rates must come down if we are to do business, but railroad labor must be liquidated. Railroads are required to pay 40 cents an hour for common labor and proportionately for other classes of work. Thus the roads have to pay more than labor receives in other lines of business."

Santa Fe Expected to Build Over Texas Plains.

A report from Slaton, Texas, says that the Santa Fe System is considering plans looking to the construction of a through line from El Paso to Fort Worth, a distance of about 550 miles, as a consequence of the growth of the Plains section of Texas and the increasing demand for more railroad facilities. It is noted that the new road will probably run from El Paso via Carlsbad, N. Mex., and Seminole, Tex., to Lamesa, Tex., whence there is a Santa Fe line of 50 miles to Slaton, where the Santa Fe line to Post, Tex., 20 miles, might be followed and from there a straight line would be taken to Fort Worth, perhaps via Haskell, Throckmorton and Graham, Tex. Preliminary surveys are reported made.

Misc.

Authorized Abandonment of Lines.

R. V. Taylor, receiver of the Alabama & Mississippi Railroad, has been authorized by the Interstate Commerce Commission, it is reported, to abandon the line which extends from Vinegar Bend, Ala., to Leakesville, Evanston and Pascagoula, Miss., a total distance of 78 miles.

The Southern Railway has been authorized to abandon several branches in Mississippi, known respectively as the Richey, the Napanee and the Belzoni lines, with an aggregate length of about 60 miles.

Central of Georgia Railway's Improvements.

Under the heading "Physical Changes" the Central of Georgia Railway Co. shows in its annual report for the year 1920 just issued that it arranged to purchase 7 Mountain type locomotives from the American Locomotive Co. and 17 all steel passenger train cars to be built by the Pullman Company, but no freight cars were bought. New steel rails weighing 90 pounds per yard were laid on 58 miles of track replacing lighter rails, while 26 1-2 miles were relaid with second hand steel rails heavier than the old rails and something more than 4 1-2 miles were also relaid with used rails of the same weight as before, making a total of practically 90 miles on which either new or better rails were laid.

Industrial progress is revealed by the fact that there was a net increase of 50 in the number of industrial tracks on the company's system and there was also a net increase of 11 in the number of company's sidings.

The construction of a new outbound freight house of reinforced concrete at Macon, Ga., costing \$165,900 including transfer platforms and driveways, and nearly \$26,000 was spent for building a double box culvert, 8 by 10 feet, of reinforced concrete near Birmingham, Ala., this replacing a stone arch. A contract was awarded and work started to build a roundhouse and shop building of reinforced concrete at Columbus, Ga., on which nearly \$100,000 has now been spent. The company also filled in 1,014 linear feet of frame and pile trestles, forming embankments which are provided with suitable waterways.

To improve and facilitate maintenance of way work 51 motor cars for the use of supervisors, section foremen and bridge gang foremen were bought at a cost of more than \$14,000. An American railroad ditching machine was also acquired at a cost of over \$12,700. Over \$48,500 were spent for the purchase of 16 electric trucks to handle cotton on the Savannah terminals.

The consolidated income account covering the entire year and therefore including the first two months of operation under the United States Railroad Administration, shows railway operating revenues of \$25,082,288; increase, as compared with the previous year, \$3,385,777.35; railway operating expenses, \$25,733,367.47; increase, \$6,443,944.44; net revenue from railway operations, (deficit) \$651,079.38, whereas in 1919 there was net revenue (gross profit) of \$2,407,087.71 in a gross revenue of \$21,696,510.74.

Reconstruction and Extension Plans for a Tennessee Railroad.

The sale of the Knoxville, Sevierville & Eastern Railroad to Col. W. B. Townsend at Knoxville, Tenn., on October 5 for \$30,000, was not confirmed by the court, but the sale was left open for new bids until November 1, when the line was sold to L. C. Gunter for \$50,000, this sum being acceptable to counsel for the largest creditor of the line, the Mechanics Bank & Trust Co., of Knoxville, trustee of the first mortgage under which \$300,000 of 6 per cent bonds are outstanding.

Mr. Gunter, who is president of the Stony Fork Collieries Co., and also of the Southern Appalachian Coal Operators Association, will in association with Mr. Townsend and others, organize the Knoxville & Carolina Railway Co. with \$400,000. capital stock to rebuild and operate the line. A gasoline car will be purchased for passenger service, but freight traffic will be moved with steam locomotives. Application has been made for a charter and the incorporators are L. C. Gunter, T. A. Wright, W. B. Townsend, S. B. Luttrell and J. H. Wallace.

The Knoxville, Sevierville & Eastern Railway, which was built about 12 years ago by W. J. Oliver, of Knoxville, is

30 miles long from Knoxville to Sevierville, Tenn. It has 4 locomotives, 3 passenger cars and 22 freight cars.

It has long been contemplated to build an extension of this road to Canton, N. C., about 50 miles, through rich timber and coal territory, and the new owners of the line may in due time take up this plan looking to its fulfillment. T. A. Wright who is attorney for the new company, says that reconstruction of the line is to begin immediately. The shops and the principal terminals will be at Knoxville. It is estimated that the projected extension to Canton will average in cost of construction about \$20,000 a mile. The building of such a line would reduce the distance by rail between Knoxville and Asheville about 30 miles. Mr. Wright also stated that all the stock for the new company had been subscribed.

Texas Midland Now Has Solid Through Line.

The Texas Midland Railway Co., has completed and put in operation its extension from Greenville to Commerce, Tex., 14 miles. It cost nearly \$500,000 and G. W. Becknal & Co., of Terrell had the contract, which was awarded last spring. The completion of this work gives the Texas Midland its own line all the way through from Paris southward to Ennis, Tex., 125 miles. Before the link was constructed trains used the St. Louis Southwestern's line between Greenville and Commerce.

Street Railway Sale to Result in Service.

The Young Men's Club of Brunswick, Ga., has bought the City & Suburban street car line there for \$12,100, and as soon as the sale is confirmed by the United States district court they propose to immediately take steps to operate the railway. As previously reported, the Brunswick Interurban Railway Co., has been organized with \$50,000 capital stock with this idea in view, those interested including George C. Smith, C. W. Irwin, R. A. Gould, C. H. Beavey and others.

New Railroad Financing.

The Carolina, Clinchfield & Ohio Railway Co. has applied to the Interstate Commerce Commission for authority to issue \$7,000,000 of its first and consolidated mortgage bonds, Series A; and \$7,369,000 of Series B.

The St. Louis-San Francisco Railroad Co. has applied for authority to issue \$2,122,000 of 6 per cent prior lien bonds to reimburse its treasury for expenditures made on capital betterments.

A Railroad up for Sale.

Earl Hoffman, special master in the case of the Gulf, Florida & Alabama Railway, will offer the entire property for sale for the third time at Pensacola, Fla., on November 21. The line extends from Pensacola to Kimbrough, Ala., 143 miles and there is also a branch 11 miles long to Gateswood, Ala. The equipment includes 12 locomotives and about 350 cars. John T. Steele, of Pensacola is receiver.

Government Sells Equipment Trust Certificates.

The War Finance Corporation has announced the sale at par of \$9,539,000 of railroad equipment trust certificates which were held by the Government, the purchasers being Salomon Bros. & Hutzler, Kidder, Peabody & Co., and Bernard Scholle & Co., all of New York. The proceeds will be used to pay part of the claims of railroads against the Government.

Extension Completed.

Immokalee, Fla., Nov. 7.—[Special.]—The extension of the Haines City branch of the Atlantic Coast Line has just been completed to Immokalee, a place of 100 population, and giving a railroad outlet to a part of Lee County which heretofore was almost inaccessible.

GOOD ROADS AND STREETS

\$75,000,000 Now Available for Federal Aid Roads.

Washington, D. C., November 12—[Special.]—President Harding's signing of the highway bill releases \$75,000,000 for federal-aid roads. Many states have been awaiting the appropriation of federal funds before launching their highway programs. Immediate building is expected to start in many quarters with consequent improvement in employment conditions. Senator Charles E. Townsend has been leading the campaign for the passage of this act which incorporates most of the principles for which he has been fighting. Primarily it demands that a portion of the Government funds be set aside for upkeep, so that the original investment will not be allowed to deteriorate. Provision is also made for allocating a percentage of the funds for interstate highways. Special appropriations are made for forest roads and trails.

Large Contract Awarded for North Carolina Roads.

Raleigh, N. C., November 12—[Special.]—Contract has been awarded by the State Highway Commission to the Union Paving Co., of Philadelphia, for 7.4 miles of roadway at a cost of \$220,269. This is known as Project No. 481 in Wake County from Cary to the Durham line. P. R. Ashby, Raleigh, obtained the contract for drainage structures, his bid being \$8,742.

R. M. Hudson Co., Salisbury, obtained the contract for Project No. 482 in Wake County from Garner to the Johnson County line, a distance of 6.64 miles, to cost \$172,225 with drainage structures costing \$2,000.

The contract for Project No. 483, a reinforced concrete pavement in Raleigh, was awarded to C. D. Rigsbee, of Durham, \$18,172. Robt. G. Lassiter Co., of Oxford, N. C., was awarded the contract for 5.12 miles in Granville County from Oxford to Lewis, his bid being \$145,207.

A soil road from Chapel Hill to the Chatham County line will be built by J. F. Mulligan Construction Co., of North Wilkesboro, at a cost of \$17,488. C. D. Rigsbee, of Durham, was awarded the contract for a reinforced concrete pavement in Durham County to cost \$74,396.

Constructive Program for Good Roads Building.

Addressing a meeting recently of the Mississippi Valley Highway Association at Meridian, Miss., on "Highway Construction As a Cure For Business Depression," J. E. Pennybacker, Secretary, The Asphalt Association, New York, and former Chief Economist, U. S. Bureau of Public Roads, made a vigorous plea for the divorce of road management from politics. He warned his hearers against the danger to the good roads movement of alliances by good roads associations with organized paving interests, and urged the letting of contracts this fall for the relief of unemployment. He presented an engineering analysis which showed that in the proposed billion dollar road program, \$600,000,000 would go to the employment of labor,—a sufficient sum to keep 997,000 laborers busy 250 days in the year as well as 32,000 engineers, inspectors and other supervisory employees.

In concluding his address, Mr. Pennybacker said:

"Summarizing those steps which I believe your organization can take, not only to help along in a great road building program beginning now, but also to insure its continuance along sound lines, these steps are:

"(1) A vigorous demand upon your political representatives that they make immediately available the largest practicable sums of money for a great road building program. (2) That everything possible be done to advance the date of letting contracts, so that during this fall and winter all of the important preliminary work may be done and the actual building of the roads go forward without the un-

necessary loss of a single working day. (3) That you set your faces against commercialism as an insidious influence which will ultimately bring the great road building program into discredit if it is allowed to sway lofty motive into ulterior purpose. (4) That you work tirelessly for the elimination of politics from road management. (5) That you insist on a policy of keen and open competition by the highway departments in road building.

"No type of pavement and no material should be allowed a monopoly or even an advantage which would increase the cost or lower the quality to the benefit of the few and the injury of the many.

"A demand should be made that every proposed road building project 'should show cause' namely, that instead of going ahead regardless of cost, the economic and traffic value of the project should be ascertained and the money appropriated in accordance with the traffic needs and the service possibilities."

Notes on Good Road Construction.

A bond issue of \$2,000,000 for construction of good roads will be presented to the voters on December 20 in Jefferson county, Texas. In addition federal and state aid will probably be forthcoming. The county plans to build a splendid system of roads linking up the main roads and laterals to the best advantage.

On December 6 a bond issue amounting to \$880,000, to be divided between a country wide and individual township budget, will be submitted to the voters of Pontotoc county, Okla. Local labor will be used, and each community will profit directly by the work provided by the bond issue. Material from the county will be used as far as possible.

The State of North Carolina has sold to a syndicate of New York bankers \$5,000,000 of 5 per cent. 40 year bonds. \$4,500,000 of this amount will go towards road construction and the remainder to schools and hospitals.

Florence, S. C., will vote December 20 on a bond issue of \$350,000. More than 1,000 names were signed to a petition requesting the election. If successful work will be started immediately. Under the property abutting plan making available this money, it will ultimately mean the expenditure of close to \$1,000,000.

To finance the construction of highways in Hertford County, North Carolina, the commissioners have sold \$250,000 of a half million dollar bond issue. F. G. Hines, the county road superintendent is directing the work, which consists chiefly of sand-clay roads. Farmers and business men are benefiting as a result of the increased traffic over the roads, making possible economical freight hauling by auto truck. As soon as the proceeds from the present bond sale are expended the remaining bonds will be sold.

To Establish Knitting Mill in Kansas City.

Announcement has been made by the Industrial Department of the Chamber of Commerce, Kansas City, Mo., that the Valatie Mills Corporation of Valatie, N. Y., will erect a plant in North Kansas City to manufacture knitted bags for the use of packers in covering meats for shipment. The initial building will be 50 x 113 feet. F. H. Crites of Kansas City is the contractor.

Textile Mill Notes.

The Norwood Manufacturing Co. of Norwood, N. C. is reported as contemplating the installation of additional combing machinery.

Fancy dress gingham will be manufactured by the Stone-cutter Mills of Spindale, N. C. Finishing machinery is being installed.

LUMBER AND BUILDING MATERIALS

Southern Pine Sales Continue High.

New Orleans, La., November 12—[Special.]—Sales of lumber are holding up well as indicated by the report from 138 mills of the Southern Pine Association for the week ended November 4. Sales for the week totaled 78,923,292 feet in 3,633 cars. Shipments for the week totaled 92,631,136 feet or an average of 671,240 feet per mill compared with the average shipment for the preceding week amounting to 683,136, which set a new high record. Shipments have been steadily increasing as a result of the continued buying in volume, the average shipment per mill for the week ended August 12 being but 522,301 feet. Likewise production is also increasing, although more slowly than shipments. On August 12 the average production per mill was 491,734, while for the week ended November 4 the average production reported was 506,696, which is an average of more than 100,000 feet below shipments. Despite the rapid rate at which shipments are now going forward the average unfilled orders on hand remain high, the last week's figure being 2,066,928, compared with the previous recent high record for the week ended October 7 totalling 2,260,438. On August 12 the average unfilled order per mill was but 1,357,268 feet.

The total unfilled cars for the week amounted to 13,130. Shipments for the week were 18.45 per cent above production, and orders were 92 per cent above production which totaled 78,203,992 feet. Orders, however, were 14.80 per cent below shipments. The actual production was 16.17 per cent below normal, and orders were 15.39 per cent below normal production.

The summary report for the week is as follows:

	Cars.	Feet.
Orders on hand beginning of week.....	13,761	298,943,964
Orders received during week.....	3,633	78,923,292
Total	17,394	377,867,256
Shipments during week.....	4,284	92,631,136
Orders on hand end of week.....	13,130	285,236,120

First "Own Your Home" Exhibition.

The first of a number of "Own Your Home" exhibitions to be given by the Southern Pine Association, in co-operation with real estate boards of various cities in different parts of the country, was held recently at Louisville, Ky., under the charge of the Consolidated Realty Co. of that city. Suitable space for the exhibit was provided by renting the ground floor of a building located in the center of the city's business district, and attention was gained by two attractively decorated show windows, with plans and models of homes on display.

The exhibit consisted of photographs, drawings and plans of homes, and reading matter dealing with every phase of home construction. Folders outlining small jobs about the house which could be done on rainy days were in demand. Means of financing home building, economies which could be observed in construction, and pointers pertaining to the construction of garages were among the subjects treated. Thirty-six panels, showing the various uses to which Southern pine can be put were on display.

The exhibit was a marked success and arrangements have been made for holding similar exhibits in Birmingham and other cities.

Sellers' Market in Hardwoods at Memphis.

Memphis, Tenn., November 12—[Special.]—Fearing a shortage of hardwood lumber stocks before next spring, foreign and domestic consumers of all classes have begun placing big orders. The transition from a buyers' to a sellers' market came suddenly, and many buyers wired acceptance of offers at prices rejected only a short time ago. Close ob-

servers are confident that the present buying is more than a temporary flurry and that the entire market is moving toward permanent stabilization, because of the widespread demand and the vastness of the potential volume of trade.

The pent-up demand for hardwoods was released with the same concert exhibited when buying ceased, and hundreds of mills shut down. The sudden realization of the drastic curtailment in production caused lumber buyers to hurry into the market. The lumber manufacturers have been greatly encouraged by the recent turn of events, and in an effort to forestall a hardwood lumber shortage, some are attempting to resume production, although the end of the logging season is near.

European and British buyers are seeking to cover their requirements, since it is believed here that ocean freight rates have reached their lowest point. Bookings by one firm here last week were 3,000,000 feet. In the domestic field many of the orders come from buyers who have been out of the market for more than a year. Buying on the part of the building trade continues uninterrupted, with the result that many mills have sold all their No. 1 and No. 2 common plain white and red oak. Accordingly many are turning to No. 3 common plain and No. 1 and No. 2 common quartered oak. Planing mills are also buying first and second red and white oak.

Building activities have not slackened to any noticeable degree, and there are indications that the present activities will be continued.

The extensive building activity has benefited furniture manufacturers who have seen increased demands for their products recently. Many factories are operating at capacity, and buyers are eager to cover their requirements. Red gum is selling quickly. Automobile manufacturers are buying hardwoods and elm in volume. Even the manufacturers of agricultural implements are showing activity not exhibited for a year.

It is expected that the buying will continue as at present until the holiday season and then resume after the inventory period. Manufacturers are looking forward to a sustained period of prosperity for their industry.

Export Trade in Lumber Again Increasing.

Norfolk, Va., November 12—[Special.]—Export of lumber has recently shown a greater revival of activity than any other department of this port's over seas trade. In August 1920 lumber export began to slump and reached its lowest point in April this year but the total shipments during the past three months have been large and the volume of business is steadily increasing. The recent reduction in ocean freight rates has been effective in increasing buying by foreign consumers. Most of the lumber from this section goes to the United Kingdom, although some is sold to the Netherlands. Soft woods in British Markets show some improvement, but stocks are still excessive, and Finnish exporters have made drastic reductions in prices.

Cut in Rates on Hardwood Lumber.

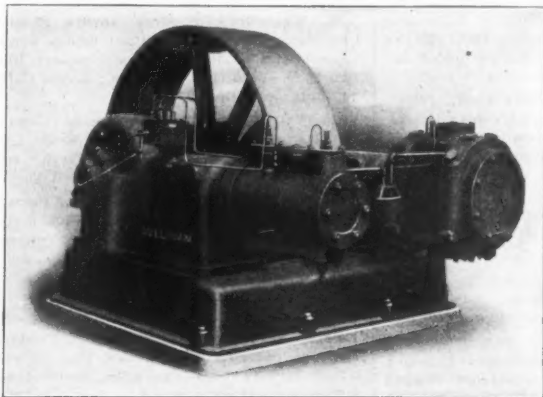
The Southern Pacific Railway, according to a report from Memphis, Tenn., has announced there a proposed reduction of from 25 to 30 per cent in freight rates on hardwood lumber and forest products from Mississippi Valley territory to western points.

MECHANICAL

Power Driven Gasoline Extraction Compressors.

A line of gasoline extraction compressors of the power driven, cross compound pattern have recently been developed by the Sullivan Machinery Company, manufacturers of mining and quarrying machinery, Chicago, Ill. A typical unit of these machines, which are classified as type WJ-61, has a low pressure cylinder 16 inches in diameter and a high pressure cylinder 8 inches in diameter, with a common stroke of 12 inches, and the builders say that at 180 revolutions a minute this machine has a displacement of 499 cubic feet of gas a minute or a displacement every twenty four hours of 718,560 cubic feet. It is good for a minimum of 200 pounds working pressure and a maximum of 300 pounds, while the horsepower ranges from 11 to 145.

Particular attention is directed to the kind of valves used and also to the method of lubrication. The valves, it is stated, are of the Sullivan improved "wafer" plate type, "characterized by low clearance losses, quiet action and freedom from wear and breakage." They are located radially with respect to the axis of the cylinder, close to each end of the cylinder, and are held in place by flat, circular leaf



A COMPRESSOR UNIT SET UP FOR USE.

springs. They are easily accessible. As to lubrication, oil wells are situated beneath the crank shaft in each frame, and into them the cranks and connecting rods splash at each revolution. Above the cranks are removable hoods, preventing oil from being thrown on the floor, and these hoods have channels to convey oil thrown on them to the main bearings and crossheads. A mechanical force feed pump lubricates the cylinders. The illustration displays the machine complete.

Electric or Gasoline-Electric Shovel.

Demands from some localities and certain industries for a thoroughly efficient and practical electric or gasoline-electric revolving power shovel has caused the development and manufacture of the machine displayed in the accompanying illustration. Concerning it the builders say that experimental features have been eliminated, the controlling apparatus has been perfected and finally that in every way electric and gasoline power, as applied to small revolving shovels, has been mastered.

Each operation of the shovel is done independently, hoisting, rotating and crowding units being separate, but nearly all of the parts are the same as used in steam shovels. Furthermore, it is remarked that while in single motor shovels much energy is wasted through friction losses in gearing, clutches and brakes and while running idle, these

losses are done away with by means of the independent drive and all of the applied power is concentrated upon actual work. Of course these savings prove profitable. The inde-



ONE OF THE NEW SHOVELS AT WORK.

pendent drive maintains as nearly as possible the general construction of standard steam shovels, as well as their performance characteristics.

These new shovels are built by the Marion Steam Shovel Co., Marion, Ohio, and any of them are supplied as may be desired with high lift equipment, clamshell, dragline or orange peel bucket attachments. The picture shows a shovel mounted on crawler trucks, but either wide faced wheels or railroad wheels can also be furnished.

FOREIGN NEEDS

[The MANUFACTURERS RECORD receives many letters from abroad asking for information about American goods, and others, from men who wish to represent American houses. Without assuming any responsibility for these concerns, we publish a summary of the foreign letters of inquiry from week to week.]

Buttons, Thread, Laces, Cloth

ABDUL HALIM, 157, 158 & 159 Chandney Chawk St., Calcutta, India.—I deal in buttons, laces, thread and cloth, and shall be much obliged if I am sent the addresses of manufacturers of such articles.

Wants Shoe and Leather Agency for Peru.

STANDARD TRADING CO., Giron Ayacucho 395, Lima, Peru.—We are in the market to represent a manufacturer of shoes and a manufacturer of leather, willing to entertain export business direct with buyers in Peru. Our efforts are entirely confined to act as agents for foreign manufacturers on commission basis. The owner and manager of the company is Mr. M. Suero Pucelo, a young man, 29 years of age, with import and export business experience. The National City Bank of Lima can give information as to our moral responsibility.

Salted and Dry Fish

A. M. BREA, Apartado, No. 138, Santo Domingo, R. D.—W. I.—I am much interested in securing the representation, on commission basis, of a producer or exporter of the following: salted and dry fish, as: herrings, bloaters, cod-fish, haddock, paddock, salmon, sardines, etc., who desires to be represented in this market. Seaboard Trading Co., and Charles F. Mattlage & Sons are already represented in this Republic, and they have made good transactions. If possible, I would like to get in touch with exporters having office in New York or in any other seaport.

Dairying and Farming Charts Desired.

THE UPPER INDIA INDUSTRIAL DEVELOPMENT COMPANY, S. Bose, Secy.; Sunderbagh, Hewett Road, Lucknow, India.—India is passing thru a great awakening, especially along the lines of industry, agriculture and dairying and we want it to permeate thru and thru the masses of the country, for which we are organizing for propaganda as managing agents of the NATIONAL DAIRY & AGRICULTURAL FARMS, LIMITED, Lucknow. We need lecturing charts on dairying and agriculture. Could it be possible for any generous institution in America to join hands with us in this mission by supplying us with such charts?

Construction Department

EXPLANATORY.

The MANUFACTURERS RECORD seeks to verify and obtain additional information regarding all enterprises reported in its Construction Department, by direct daily correspondence. Further facts of news value are published later from telegraph, mail and representatives' reports. We appreciate having our attention called to errors that may occur.

DAILY BULLETIN.

The Daily Bulletin of the MANUFACTURERS RECORD is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$20.00 per year.

Airplane, Plants, Stations, Etc.

Va., Newport News—Ballons, etc.—Major Thomas S. Baldwin, U.S.A., Akron, O. interested in establishing balloon and dirigible manufacturing plant.

Bridges, Culverts and Viaducts.

Ala., Gadsden—State Highway Comsn., Montgomery, Ala. plans building bridge over Wills Creek; cost \$40,000.

Ark., Pine Bluff—Jefferson County Bridge Dist. let contract to Vincennes Bridge Co., Vincennes, Ind., at \$58,477 to repair county free bridge; Parkes Engineering Co., Engr., Pine Bluff, Ark. (Lately noted.)

Ark., Searcy—White County will expend \$30,000 for bridge construction. Address Quorum Court.

Ga., Columbus—City plans \$60,000 river bridge. Address The Mayor.

Ga., Jackson—Butts County will build bridges and construct roads; plans voting on \$150,000 bonds. Address Commr J. O. Gaston.

Ga., Savannah—Kingsland Bridge Co. let contract to Beasley Contracting Co. to build bridge across St. Marys river at Wild's Landing; bascule bridge 90-ft. long with black cypress trestle approaches; cost \$50,000.

Ky., Covington—Kenton County will build bridges and construct roads; voted Nov. 8 or \$500,000 bonds; Howard Stephens, Treas.

La., New Orleans—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky. plans building bridge at Rigolets to cost \$2,991,000 and another at Chef Menteur to cost \$1,149,000.

Md., Annapolis—State Roads Comsn., 601 Garrett Bldg., Baltimore, will build reinforced concrete bridge over Severn River consisting of 24 spans, each 65-ft. clear, with total length of 1893 ft., roadway 22-ft. together with necessary piers, abutments, paving and earth fill approaches; Anne Arundel County, Contract AB-10; bids until Nov. 29. Lately noted. (See Machinery Wanted—Bridge Construction.)

Md., Belair—State Road Comsn., 601 Garrett Bldg., Baltimore, will construct double 54-ft. span reinforced concrete arch bridge over Little Gunpowder Falls between Baltimore and Harford counties on Belair road including earth fill and removal of present truss bridge; Harford County, Contract H-29; bids until Nov. 22. (See Machinery Wanted—Bridge Construction.)

Miss., Bay St. Louis—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky. plans reconstructing bridge at Bay St. Louis, cost \$844,000.

Miss., Biloxi—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky.

plans reconstruction of Biloxi bay trestle, cost \$450,000.

Mo., Bloomfield—State Highway Dept., Jefferson City, Mo. will build 30-ft. skewed I-beam span, 30, 35, 25 and 50-ft. I-beam span bridges on State road from Dexter eastward and westward; cost \$25,064.20; Federal Project 179, Stoddard County.

Mo., Keytesville—State Highway Dept., Jefferson City, Mo. let contract to J. M. Mess, Clayton, Mo., at \$4,953.90 to build 16-ft. and 20-ft. reinforced concrete slab span bridges; Charlton County, State Aid Project 20.59; M. J. Hanick, Div. Engr., Howe Bldg., Macon, Mo. (Lately noted inviting bids.)

Mo., Nevada—State Highway Dept., Jefferson City, Mo. let contract to Western Bridge Co., Harrisonburg, Mo. to build 100-ft. steel truss span bridge over Osage river; State Road Project 106; Vernon County. (Lately noted inviting bids.)

N. C., Wilmington—City Commrs. let contract to Burr Bros., at \$4,375 to repair Fifth St. bridge across Atlantic Coast line tracks.

Okla., Ada—Pontotoc County will build 44 bridges; steel or concrete; vote Dec. 6 on \$880,000 bonds. Address County Commrs.

Okla., Bartlesville—Washington County will build bridges and construct roads; voted \$700,000 bonds; Neva M. Scott, County Clk.

Okla., Kingfisher—State Highway Dept., Oklahoma City, Okla. will probably let contract to Hyde Construction Co., Enid, Okla. for 200-ft. concrete arch bridge.

S. C., Chester—Chester County let contract to L. A. Chetwood, Columbia, S. C., at \$14,124.65 to build bridge over South Fork on Lewis Turnout road.

S. C., Marion—Marion and Florence Counties will build toll bridge over Pee Dee river; 8-ft. above highest water known in river; Address Marion County Commrs., Marion, S. C., or Florence County Commrs., Florence, S. C.

S. C., Newberry—Newberry County will build 263-ft. reinforced concrete bridge over Bush River; cost \$20,000 to \$26,000; bids under, County Engr. (See Machinery Wanted—Bridge Construction.)

Tenn., Dyersburg—Dyer County let contract to Bonduant Contracting Co., Hickman, Ky., and Elkas & Weathers, Greenville, Miss. to build 4 to 60-ft. bridges; cost \$4000. (Lately noted.)

Tex., Belton—Bell County will reconstruct bridges and culverts destroyed by floods on Highway 2-C; cost \$68,276; also reinforced concrete bridges and culverts on Highway 2-C; cost \$48,000; build reinforced concrete bridge on Highway 26 over Salado Creek; cost about \$20,000; J. W. Sutton, County

Judge; S. J. Treadway, County Engr., Temple, Tex.

Tex., Carter's Ferry—Marshall and Panola Counties let contract to Blodgett Construction Co., Shreveport, La., at \$8,195 to build bridge across Sabine river; 240-ft. long and 12-ft. wide; steel, concrete and lumber. (Lately noted.)

Tex., Georgetown—Williamson County let contract for bridge across Berry's Creek; concrete and steel; will let contracts for other bridges; F. D. Love, County Judge. (Lately noted.)

W. Va., Grantsville—State Road Comsn., Charleston, W. Va. will build 12-ft. span bridge across Phillips run, concrete arch and culvert; Calhoun County; bids until Dec. 2.

W. Va., Ripley—State Roads Comsn., Charles, W. Va. will build 98-ft. span, steel bridge across Mill Creek, sub-structure and super-structure; Jackson County; bids until Dec. 2.

W. Va., Spencer—State Roads Comsn., Charleston, W. Va. will build bridge across Laurel Run at Roane-Calhoun county line; two 30-ft. spans, concrete slab; Roane County; bids until Dec. 2.

W. Va., Wheeling—State Roads Comsn., Charleston, W. Va. will build 40-ft. span bridge across Little Wheeling Creek; concrete arch; Ohio County; bids until Dec. 2.

W. Va., Williamson—State Roads Comsn., Charleston, W. Va. will build bridge across Pigeon Creek; two 65-ft. spans, concrete arch; Mingo County; bids until Dec. 2.

Canning and Packing Plants.

Fla., Sarasota—Sarasota Fruit Products Co., let contract to Carman Co., to construct factory building; mfrs. marmalades, jellies, etc. (Lately noted.)

Md., Cavetown—J. Cleveland Grice, Hagerstown, Md., purchased Blue Ridge Canning's Co.'s cannery; will improve; install additional equipment; plans organizing company.

Okla., Okmulgee—D. P. Trent, County Agt., interested in establishing cannery for sweet potatoes.

Clayworking Plants.

Ala., Gadsden—Clay Products—Gadsden Clay Products Co., Mr. Hood, Mgr., is installing waste heat drying plant at brick plant; mfrs. pressed or face brick. (Lately noted to erect additions.)

Coal Mines and Coke Ovens.

Okla., Craig County—Hartford Valley Coal Corp., R. M. Eyster, Representative, Muskogee, Okla. leased 100,000 acres coal lands, will develop.

W. Va., Charleston—Glade Creek Coal & Lumber Co., capital \$1,000,000, E. A. Simmons and D. S. Twobig, both Charleston; S. W. Richey, Cincinnati, O.

W. Va., Elkhurst—Elksprint Coal Co., capital \$75,000, incptd. by H. M. and J. C. Carson; both Charleston, W. Va.; O. L. Hall, Clay, W. Va.

W. Va., Keyser—Dixon Coal Co., capital \$75,000, incptd. by Edward G. Kimball and

S. N. Moore, both Keyser; Howard Cross, Cumberland, Md.

W. Va., Matewan—Tarnay Collieries Co., capital \$100,000, incptd. by Charles Tarnay, Williamson, W. Va.; J. A. Henchey, Welch, W. Va.; G. W. Lambert, Roanoke, W. Va.

W. Va., McGraws—Mary Elizabeth Coal Co., First National Bank Bldg., Huntington, W. Va., H. L. Cox, V.P.-Mgr., Beckley, W. Va. will develop 1678 acres coal land; install mining mch. bids about March 1st, 1922. (Lately noted.)

W. Va., Morgantown—America Coal & Coke Co., capital \$100,000, incptd. by Edward A. Byrne, F. E. Peabody and Charles M. Rhoads.

W. Va., Mount Hope—Sugar Creek Coal Co., capital \$125,000, incptd. by T. A. Deltz and L. W. Sydnor, both Charleston, W. Va.; C. W. Dillon, Fayetteville, W. Va.

Concrete and Cement Plants.

Ark., Blytheville—Concrete Blocks—T. A. Mickie, Steele, Mo. contemplates moving plant from Steele, Mo. to Blytheville; mfrs. double-air ventilator building block.

La., Lake Charles—Concrete Culverts—Nelson Concrete Culvert Co., capital \$75,000, incptd. with A. LaGrange, Prest.; P. W. Kiplinger, Secy.; W. H. Butler, Mgr.; mfrs. sectional pre-cast reinforced concrete culverts of Nelson type.

Cotton Compresses and Gins.

Ga., Athens—Fred Gray Cotton Gin Co., capital \$100,000, incptd. by Fred and Katherine Gray.

N. C., Edward—Dr. Kaper Gin & Potato Storage Co., capital \$75,000, incptd. by Oswald and Lillian Kaper; both Edward; Jno. Hare Bonner, Washington, N. C.

Cottonseed-Oil Mills.

Ark., Hope—Temple Cotton Oil Co., capital \$1,000,000, incptd. with H. A. Carpenter, Prest.; F. O. Coleman, V.P.; R. L. Waite, Secy.-Treas.

Drainage Systems.

Fla., Mango—Mango Drainage Dist. Board of Suprvs., W. O. Hobbs, Chrmn., Gliddens Bldg., Tampa, Fla. will construct drains and ditches; bids opened Nov. 15. (See Machinery Wanted—Drainage.)

Ky., Centerville—Hickman County Comrs., J. A. Porter, Secy. will construct drainage system in Bayou de Chien Drainage Dist. in Graves, Hickman and Fulton Counties; 18½ mi. main canal, 6 laterals, and 8 wooden bridges, total excavation 1,306,000 cu. yds.; bids until Nov. 25. (See Machinery Wanted—Drainage.)

Tex., Dallas—City, Charles Davis, Mayor, will vote Dec. 27 on \$125,000 bonds for drainage system. (Lately noted to vote Oct. 11.)

Electric Plants.

Ala., Selma—Alabama Old Soldier's Home will install lighting system; Alabama Power Co. furnish power.

Fla., Fort Pierce—City will expend \$60,000 to install machinery in power and light plant; increase plant capacity to 1,000 K. W.; let contract to Thos. B. Whitte, Charlotte, N. C., for 500-K. W. General Electric steam turbine; direct connected exciter; surface condenser with all auxiliaries, water tube boiler equipped with super heater and oil firing equipment; switchboard panel house, foundations, etc. Address The Mayor. (Lately noted.)

Fla., Quincy—City will vote on \$100,000 electric light bonds. Address The Mayor.

Ga., Perry—City, S. P. Crowell, Clk., will extend and repair lighting system; voted \$3,000 bonds; O. H. Sheffield, Engr., Atlanta, Ga. (Lately noted to vote.)

La., Crowley—City, J. O. Herpin, Mgr., let contract to Fulton Iron Works, St. Louis, Mo., for 380 and 285 B. H. P. engines; to General Electric Co., Schenectady, N. Y. for 2 generators and complete switchboard. (Lately noted bids until Oct. 17.)

Md., Lonaconing—Home Electric Light Co. increased capital from \$25,000 to \$50,000.

Miss., Louisville—City, Edw. M. Livingston, Mayor, will repair light and water plant; vote Nov. 29 on \$15,000 bonds.

Miss., Centerville—City, H. S. Archer, Clk., plans expending \$16,000 to improve electric light plant. Lately noted. (See Machinery Wanted—Electric Light Plant Equipment; Engines.)

Tex., El Paso—City plans installing lighting system in downtown section. Address The Mayor.

Va., Amherst—Amherst Light & Power Co., capital \$20,000, incptd. with W. A. Baldock, Prest.; O. V. Hanger, Secy.

W. Va., Elkins—Elkins Power Co., increased capital from \$50,000 to \$100,000; install additional equipment; develop 1,000 H. P.; C. C. Bosworth, Mgr.-Engr. (See Machinery Wanted—Generator.)

Flour, Feed and Meal Mills.

Ga., Cochran—State Market Bureau, Atlanta, Ga., interested in establishing grain elevator.

Ga., Millen—City plans establishing grain elevator; State Market Bureau, Atlanta, Ga., interested.

Ga., Milner—P. W. Ethridge is reported to rebuild roller mill recently burned at \$10,000 loss.

Ga., Smithville—J. W. McDonald will establish grain elevator in connection with flour mill; erect 30x24 ft. building; machinery purchased. (See Machinery Wanted—Transmission Equipment.)

Tex., Dallas—Pearlstone Mill & Elevator Co., Julius H. Pearlstone, Prest., Hickory and Mayes Sts., plans rebuilding plant burned at \$75,000 loss.

Tex., Waco—C. H. Ruebeck and associates purchased Anchor Flour Mill plant; contemplate improvements.

Va., Bristol—Service Mill Co., let contract to S. T. Copenhaver, at \$1,500 to erect 4-story 60 x 32 ft. brick and concrete mill building; install electric lights.

Foundry and Machine Plants.

Fla., Wauchula—Implements—Polk, Hunt & Davis, organized with V. S. Polk, Prest.; J. B. Hunt, V.P. and Mgr.; W. P. Davis, Secy.-Treas.; will expend \$3,000 to erect 80 x60 ft. fireproof building; bids until Nov. 20; install spray machines and fertilizer distributors, costing \$2,500 to \$4,000; bids until Dec. 1 for machinery; Lately noted incptd., capital \$50,000. (See Machinery Wanted—Blacksmith Shop; Lathes; Press; Hack Saw Outfit; Motor.)

Md., Baltimore—Radiators—Curran Motor Radiator Co., Elmer Altireith, Prest., 401 Calvert Bldg. will erect 40x180-ft. plant, brick front, glass walls, daylight structure, asbestos roof; purchased site; mfrs. motor radiators. (Lately noted increased capital to \$500,000.)

Tenn., Nashville—Silo and Cutter—Dixie Silo & Cutter Co., capital \$100,000, incptd. by J. H. A. Ross, J. H. Whalen and Thos. G.

Kittrell, formerly Cotton States Tractor Co.

Va., Alexandria—Repairing—Virginia Corporation of Alexandria, capital \$100,000, incptd. with E. A. Mores, Prest.; S. A. Aplin, Secy., both Washington, D. C.; L. D. Christie, Treas., Alexandria, Va.; mfrs. remodel and repair railroad and electric cars, etc.

W. Va., Huntington—Cars, etc.—American Car & Foundry Co., W. H. Woodin, Prest., 165 Broadway, New York, will expend \$200,000 on improvements to plant.

Gas and Oil Enterprises.

Ala., Birmingham—Acme Oil Co. of Alabama, capital \$50,000, incptd. with W. N. Benton, Prest.; R. E. Smith, V.P.; D. E. Chandler, Secy.

D. C., Washington—Consumers Oil & Gas Co., capital \$25,000, incptd. by Walter W. Simpson, Edw. M. Henry.

Fla., Oxford—Oxford Oil & Gas Co., capital \$500,000, incptd. with J. Q. Baker, Prest.; R. N. Baker, V.P.; Wm. B. Turner, Secy.-Treas.

Fla., Tampa—South Florida Oil Co., capital \$30,000, incptd. with Earl H. McRae, Prest.; Jno. A. Gallagher, V.P.; Edw. A. Kitchen, Secy.-Treas.

Ky., Mount Sterling—Gate City Oil Co., capital \$10,000, incptd. by Paul Strother, W. S. Smathers, and J. D. Wren; contemplates installing two 10,000-gal. capacity gasoline storage tanks, pump, and other equipment.

Ky., Owensboro—Bays Fork Oil Co., incptd. by W. H. Duncan, W. E. Whitley and Price Ray.

La., Alexandria—Refining—Alexandria Refining Co., capital \$50,000, incptd. with Herbert T. Clark, Prest.; Geo. W. Zoder, V.P.; Edwin M. Tolle, Secy.-Treas.

La., Alexandria—City, Mayor Foisy let contract to Southern Carbon Co., H. A. Briggs, Monroe, La., to construct pipe line from Ouachita parish field.

La., Glenwood (P. O. Napoleonville)—Glenwood Petroleum Co., capital \$10,000, incptd. with W. G. Patterson, Prest.-Treas.; R. M. Patterson, V.P.; J. W. Gillman, Secy.

Okla., Chickasha—Chickasha Gas & Electric Co., F. D. Shaffer, Mgr., let contract at \$40,000, to construct gas line to connect distributing system in city with mains of Oklahoma Natural Gas Co.; Joe. McCreary, Gen. Engr., Tulsa, Okla.; R. J. Andrus and L. F. Harza, Civil Engrs., Chicago, Ill. (Lately noted.)

Okla., Coweta—Mountain Creek Oil & Gas Co., capital \$32,000, incptd. by Geo. Longnaker, Oscar Hartman; both Coweta; Jas. E. Hunter, Tulsa.

Tex., Cisco—Casinghead—Homer Peeples plans installing casinghead gasoline plant in Callahan shallow field.

Tex., Crystal City—Crystal City Oil Co., organized with J. N. Taft, Prest.; W. F. Martin, 1st V.P.; M. L. Harkey, Secy.

Tex., Fort Worth—Marine Oil Co., capital \$100,000, incptd. by A. G. Reed, W. F. Luther and Ike A. Wynn.

Tex., Houston—Winner Oil Corp., capital \$50,000, incptd. by R. T. Smith, W. C. McDaniel and O. G. Brauns.

Tex., Mexia—Humphreys Pure Oil Co., capital \$100,000,000, incptd.; combines properties of Humphreys Mexia Co. and Humphreys Texas Co., A. E. Humphreys, Mgr.

Tex., Rockdale—Refinery—G. C. Holmes & Co., Houston, Tex., contemplates erecting refinery.

W. Va., Charleston—Laing Oil Co., 608 Kanawha Banking & Trust Co., capital \$200,000, incptd. by A. C. Lawrence, E. S. White and A. G. Thompson, let contract to

In writing to parties mentioned in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned.

Otis Stump, Box 1065, to lay 3,100 ft. 6%, 8 and 10-in. piping. Lately noted. (See Machinery Wanted—Casing.)

W. Va., Warwood, P. O. Wheeling—Becksmith Oil Co., Theodore Smith, 121 10th St., will expend \$4,000 to construct gasoline plant; lay 1 to 10-in pipe and casing. (Lately noted inceptd., capital \$10,000. (See Machinery Wanted—Compressors; Engines; Pumps; Tanks, etc.)

W. Va., Wheeling—Southland Oil Co., capital \$50,000, inceptd. by Wright Hugus, P. B. Lantz and W. J. Cotton.

Hydro-Electric Plants

Md., Baltimore—Susquehanna Power Co., Francis T. Homer, 40 Wall St., New York, reported planning development of property on Susquehanna river including dam above Conowingo bridge; dams and electrical generating machinery from \$15,000,000 to \$20,000,000; 3 dams, one above Conowingo bridge, later another dam farther down the river, and third one above Port Deposit.

Tex., Edinburg—City, A. J. Ross, Mayor let contract to Gulf Machinery & Ship Supply Co., 2128 Strand, Galveston, Tex., at \$22,000 to construct 40x60 ft. dam and power house; wood construction concrete floor; cost \$16,000; 1 mi. transmission, cost \$6,000; develop 100 H. P.; H. E. Wilcox, City Engr.

Ice and Cold-Storage Plants.

Ala., Birmingham—Crystal Ice & Storage Co., 1704 Ave. D., (lately noted inceptd \$75,000) will erect 50x100-ft. install 50 ice and cold storage plants; bids opened from Nov. 15 to Dec. 1; Gel. E. Brett, Const. Engr. (See Machinery Wanted—Ice Plant.)

Ala., Gadsden—C. G. Crossfield and N. H. Brown, County farm demonstrator interested in establishing cold storage and creamery.

Ala., Montgomery—Independent Ice Co., capital \$20,000, inceptd. by J. W. Hunter, L. L. Peet and A. L. Pickard.

D. C., Washington—Wise Bros., 3206 N St., N. W. will install refrigeration system in dairy plant; have plans.

Fla., Archer—Maddox Foundry & Machine Plant contemplate installing equipment for 5 ton ice plant.

Ga., Atlanta—C. T. Ingram will erect 50 ton capacity ice plant; estimated cost \$100,000; construction begun.

Ga., Atlanta—Atlantic Ice & Coal Co. will erect 2 story reinforced concrete ice plant, approximate cost \$135,000; Morgan & Dillon, Archts., Atlanta; Foundation Co., Contrs., New York.

Ga., Cairo—H. G. Knight will erect cold storage plant; has plans.

Ga., Manchester—Manchester Ice & Fuel Co. contemplates erecting ice storage house.

Ky., Bowling Green—Bowling Green Ice & Cold Storage Co. will improve plant.

Ky., Harlan—Cumberland Ice & Cold Storage Co. let contract to Triumph Ice Making Co., Oakley, Cincinnati, O. to install 15 ton distilled water ice making and cold storage plant.

La., Pointe a la Hache—A. Buras and L. Gazema will erect ice plant; purchased site.

Md., Easton—Easton City Ice Co., will erect plant; purchased site.

Mo., St. Louis—D. M. Gause, Prest., Missouri Farmers Assn., Springfield, Mo. will establish cold storage plant; has plans.

Miss., Starkville—State Bond Improvement Comsn. contemplate establishing ice making plant, daily capacity 7½ tons; F. C. Luik, Arch.

N. C., Raleigh—Morrow Bros. & Heath Co., A. C. Heath, Mgr. will erect building install cold storage plant and meat market.

Okla., El Reno—Consolidated Ice Co. have acquired Trulock ice plant, will remodel.

Okla., Shady Point—E. L. Peters and E. Hansen will erect ice plant; purchased site.

Tenn., Clarksville—Clarksville Ice & Coal Co. let contract to Bush & Co., Nashville, Tenn. to erect plant. (Lately noted to erect \$20,000 ice plant, mchy. purchased.)

Tenn., Nashville—Chamber of Commerce interested in establishing ice plant.

Tex., Dallas—Dallas Co-operative Ice & Mfg. Co. will erect \$72,000 plant; has plans.

Tex., Kingsville—Kingsville Ice & Milling Co. acquired interests of Rio Grande Ice Co., probably install additional ice storage.

Tex., Lubbock—Clover Leaf Creamery Co. plans establishing 12 on capacity ice plant.

Tex., Orange—H. Gomez plans installing small refrigerating plant.

Tex., San Benito—San Benito Creamery Co. will install refrigeration equipment.

Tex., Van Alstyne—Home Ice Co. contemplate erecting ice plant.

Va., Alexandria—Mutual Ice Co. will erect ice storage plant; estimated cost \$20,000.

Va., Buchanan—Buchanan Produce Exchange, R. G. Lockwood, Prest. will install refrigerating equipment.

Va., Columbia—M. H. Baker & Sons plans establishing 6 to 10 ton capacity ice plant.

Va., Richmond—Merchants Cold Storage & Ice Mfg. Co. will improve plant; Ophuls, Hall & McCreery, Engrs., New York.

Va., Winchester—C. L. Robinson reported to erect \$65,000 ice plant.

W. Va., Morgantown—Morgantown Ice Co. contemplate constructing plant additions.

Land Developments.

Ala., Anniston—Sunset Land Co., inceptd. with Hillyer Robinson, Prest.; I. A. DeHart, Secy.-Treas.; develop 150 to 450 acres for residential section; install improvements including water, sewerage, paving, etc.; approximate cost \$50,000 to \$100,000 (Lately noted.)

Fla., Avon Park—Avon Citrus Fruit Co., capital \$100,000, inceptd. with Edwin M. Brickell, Prest.; Alvan R. Merritt, V-P.; Richard T. Merritt, Secy.; Thos. B. Todd, Jr., Treas.

Fla., Daytona—Hubert F. Krantz, New York, plans developing tract recently acquired.

Fla., De Funiak Springs—Deerland Development Co., capital \$750,000, inceptd. with Wm. J. Bloxham, Prest.; B. W. Freyer, V-P.; A. J. Froelich, Secy.-Treas.

Fla., Fort Lauderdale—City will improve park; voted \$2500 bonds. Address The Mayor.

Fla., Orlando—Lakewood Estates, capital \$100,000, inceptd. with Stacey P. Bailey, Prest.; P. Phillips, V-P.; E. W. Lott, Secy.-Treas.

Ga., Decatur—City, W. J. Dabney, Mayor, contemplates developing tract into park.

N. C., Elkin—Peoples Realty & Development Co., inceptd. with J. F. Carter, Prest.; D. C. Martin, Secy.-Treas.

Okla., Chickasha—City, O. Coffman, Mayor, will improve Shanoan Springs and other parks; will issue \$18,000 bonds.

Okla., Oklahoma City—City will establish parks; extend sewer and water systems; install sewage disposal plant, storm sewers, fire equipment; straighten river; vote Nov. 26 on \$7,100,000 bonds; V. V. Long, Chrmn. Board of Consit. Engrs.

Tex., El Paso—City, Chas. Davis, Mayor, will extend and improve park; vote Dec. 27 on \$100,000 bonds. (Lately noted to vote Oct. 11.)

Tex., Houston—J. H. Sieber, W. W. Moore and Jno. Kieffer, 304 Foster Bldg., will incorporate company to develop park plan, perpetual care cemeteries; will expend \$500,000 to develop 75-acre site in Forrest Park cemetery; construct rest house and chapel; erect community mausoleum with 1500 to 2000 crypts and several private rooms; construct drives, walks, etc.; H. J. Ricker, Landscape Archt.; C. W. Hughes, Consit. Engr.; both Sheveport, La.; will later develop cemetery in western section.

Lumber Manufacturing.

Fla., Fort Lauderdale—Fort Lauderdale Novelty Works will erect planing mill.

Fla., Pensacola—Wells—Patterson Co. will erect planing mill in connection with plant on Bayou Chico.

Fla., Point Washington—Point Washington Lumber Co., inceptd. with S. R. Banford, Prest.-Mgr.; N. P. Lesuer, Secy.-Treas.; has 180x42 ft. building; daily output yellow pine and cypress lumber and shingles; is erecting \$75,000 planing mill; construction by owner. (Lately noted.)

Ga., Nashville—Jno. Fender leased several thousand acres uncut timber land; contemplates erecting saw mill south of Nashville; will construct tramway to connect timber tract with mill.

Miss., Canton—Evergreen Lumber Co., capital \$30,000, inceptd. by W. T. Castles, A. K. Foot and M. E. Fitchett.

Miss., Grenada—Gayoso Lumber Co., Memphis, Tenn. increased capital from \$150,000 to \$250,000; plans to install mill early next year.

Mo., Brownwood—M. E. Lemming Lumber Co., Cape Girardeau, Mo. purchased 3000 acres timber land, containing 30,000,000 ft. lumber; will develop.

Metal-Working Plants.

Md., Baltimore—Monotype and Linotype—Keystone Monotype & Linotype Co., 418 E. Pratt St., capital \$10,000, inceptd. by F. Howard Kidd, Philip S. Ball and Walter V. Harrison.

Okla., Commerce—Lever Attachments—Powell Co., Washington, D. C. will erect plant for mfr. of lever attachments for engines.

Tenn., Lebanon—Sheet Metal—Lebanon Sheet Metal & Plumbing Co., S. Cumberland St. will establish plant to mfr. tanks.

Tex., Weatherford—Piston Rings—Standard Piston Ring Co., capital \$10,000, inceptd. by H. J. Bradfish, G. S. White and M. D. Akard.

Mining.

Ala., Gadsden—Mining—Starnes & Co., Chicago, Ill. purchased 100,000 acres mineral land in Raccoon Mountain tract; will develop.

Mo., Cape Girardeau—Silica—National Mining Co. reported to erect plant for refining of silica; acquired site.

Mo., Jefferson City—Limestone Quarry—J. J. Slate purchased lime stone quarry, will erect kilns, etc., also build bungalow.

W. Va., Fairmont—Gold—Sacra Familia Gold Mining Co., capital \$1,000,000, inceptd. by Melvin G. Sperry, Carl W. Neff and Albertbert L. Lohm, all Clarksburg, W. Va.

Tenn., Ducktown—Copper—Ocoee Copper Co., J. I. Carter, Prest.-Mgr., Volunteer

Bldg., Chattanooga, Tenn. contemplate erecting flotation plant to treat copper ore, plans not completed. (Lately noted.)

Miscellaneous Construction.

Fla., St. Petersburg—Piers—City plans expending \$200,000 on restoring temporary pier; contemplates building pier costing from \$500,000 to \$1,000,000. Address The Mayor.

Ga., Forsyth—Elevator—Paul R. Chapman and others interested in erection of \$15,000 grain elevator; Fred T. Bridges of State market bureau.

La., New Orleans—Sea Wall—Orleans Levee Board will erect sea wall to reclaim End to Seabrook; plans by State Board of Engrs. for section No. 1 which will include sea wall between West End and Spanish Fort.

Md., Baltimore—Coal Conveyors—Columbia Graphophone Factories Corp., Woolworth Bldg., New York, let contract to M. A. Long Co., Munsey Bldg., Baltimore, to construct coal conveyor for plant at Orangeville.

Miss., Vicksburg—Terminals—Federal Barge Line, J. T. Atkinson, Gen. Agent, Memphis, Tenn. purchased site for river terminals; \$400,000 appropriated. (Previously noted to establish terminal facilities.)

Tex., Houston—Mausoleum—J. H. Seiber, W. W. Moore and John Kieffer, organize \$50,000 company, 304 Foster Bldg. will construct mausoleum in Forrest Park Cemetery, with 1500 to 2000 crypts, and several private rooms; H. J. Ricker, landscape Archt. and Engr.; Shreveport, La. (See Land Development.)

Tex., Galveston—Breakwater, etc.—Treasury Dept., Supv. Archt.'s Office, Washington, D. C. will construct pile breakwater and placing riprap at U. S. Quarantine Station, bids until Dec. 1. (See Machinery Wanted—Breakwater, etc.)

Miscellaneous Enterprises.

Ala., Birmingham—Hardware—Groff Mfg. Co., capital \$10,000, incptd. with A. R. Goff, Prest.; Frank M. Means, V.-P.; John Davidson, Secy.; J. W. Cochran, Secy.; mfrs. builders and furniture hardware, etc.

Fla., Miami—Construction—Bastian Supply & Construction Co., capital \$25,000, incptd. with Harry S. Bastian, Prest.; H. H. Woodsmall, Secy.-Treas.

Fla., Miami—Building Supplies—Miami Builders' Supply Corp., incptd. with C. L. Brown, Prest.; Webster Spates, Secy.-Treas.

Fla., Orlando—Incinerator—City contemplates establishing additional incinerator. Address The Mayor.

Fla., Tampa—Publishing—La Gaceta Publishing Co., Julian Diaz, Prest., 514 Curry Bldg. has building; installed \$12,500 mchy. all purchased. (Lately noted incptd., capital \$25,000.)

Fla., Tampa—Transportation—Florida Distributing Co., capital \$500,000, incptd. with T. Ed. Bryan, Prest.; W. A. Adams, Treas.

Ala., Tuscaloosa—Cleaning and Dyeing—Morgenthau Cleaning & Dyeing Works, will erect 22x80-ft. brick building, hollow tile walls; install equipment for cleaning and dyeing plant.

Fla., West Palm Beach—Publishing—Florida Publishing Co., capital \$100,000, incptd. by Vernon L. Smith, Tulsa, Okla. and others.

Fla., Winter Park—Publishing—Sandspur Publishing Co. (lately noted incptd., capital \$25,000 organized with A. J. Hanna, Prest.; W. M. Ingram, Secy.; A. P. Lewis, Mgr. will

erect fireproof building; install printing equipment. (See Machinery Wanted—Printing Equipment.)

Ga., Atlanta—Construction—Hazzard Construction Co., capital \$10,000, incptd. by A. H. and W. S. Hazzard.

Ga., Atlanta—Bookbinding—National Library Binding Co., G. B. VanDeene, Treas., Springfield, Mass., will establish branch bookbinding plant.

Ga., Wynnton (P. O. Columbus)—Florist, etc.—Wheat & Shelnutt, 1116 Broad St. Columbus, organized with Geo. M. Wheat, Prest.-Treas.; Obie F. Shelnutt, V.-P.; E. M. Wheat, Secy. (Lately noted incptd., capital \$20,000.)

La., New Orleans—Dairy—Cloverland Dairy Co., Geo. A. Villere, Prest.-Mgr., 3625 Tulane Ave. will erect fireproof distributing plant some time in fall of 1922; Favrot & Livaudias, Archts., Hibernia Bank Bldg.

Md., Baltimore—Advertising—Wildman Advertising Agency, 2 E. Redwood St. capital \$10,000, by Nat C. Wildman, Walter K. Porzer and Isaac Hirschler.

Md., Baltimore—Dairy—Old Homestead Dairy Co., F. A. Lezenby, Prest. will erect 54x90-ft. 2 story concrete building; estimated cost with equipment about \$100,000; Frederick E. Beall, Archt., 306 St. Paul St., B. F. Bennett Building Co., 123 S. Howard St., lowest bidder.

Mo., St. Louis—Cleaning and Dyeing—Leonard Cairo will erect 30x110-ft. 2 story dyeing and cleaning plant; purchased site on Delmar Blvd.

N. C., Charlotte—Printing—Western Newspaper Union, A. H. Turney, Mgr., 209 N. Graham St. will remodel and repair building, build additional story giving 18,000 total floor space. (Lately noted burned at loss of \$100,000.)

N. C., Tabor—Potato Curing—Tabor Sweet Potato Storage Co., capital \$10,000, incptd. by R. H. Burns, J. L. Lewis and H. J. Jones.

Okla., Oklahoma City—Fire Equipment—City will vote Nov. 26 on \$7,100,000 bonds for improvements including fire equipment, storm sewers, water, sewer, and sewage disposal plants, river straightening and parks; V. V. Long, Chrmn., Board of Consulting Engrs.

Tex., Dallas—Transportation—Empire Transfer Storage Co., capital \$50,000, incptd. by A. J. Tobias, Sr. and F. I. Tobias.

Okla., Wilson—Fire Equipment—City, Isaac Roberts, Mayor, voted \$8,000 bonds for fire fighting equipment and main extension. (Lately noted to vote.)

Tex., El Paso—Printing—Heller Printing Co., incptd. by Maurice Heller, A. Stolaroff and H. Potash.

Va., Norfolk—Steamship Line—Hampton Roads Pan-American Steamship Co., capital \$100,000, incptd. with A. W. Hudnall, Prest.; William Roth, Secy., both Norfolk; operate lines out of Hampton Roads to all points in United States and foreign countries.

W. Va., Charleston—Advertising—Carey System, capital \$25,000, incptd. by C. E. Carey, M. R. Mathews and A. T. Caruthers.

W. Va., Fairmont—Advertising—Ahern Advertising Corp., capital \$50,000, chartered by James D. Ahern, G. E. Jefferies and A. J. Coburn.

W. Va., Huntington—Amusements—Stobe Amusement Co., capital \$50,000, incptd. by W. E. Deegans and A. M. Stobe, both Huntington; Fred F. Harless, Mount Hope, W. Va.

W. Va., Wheeling—Printing—Wheeling Printing Co., capital \$50,000, incptd. by Max. Schafer, H. B. Copeland and H. W. Mitchell.

Miscellaneous Factories.

Ala., Birmingham—Chemicals—Pittman Chemical Co., incptd. with F. M. Pittman, Prest. and Gen. Mgr.; R. L. Lange, V.-P.; M. I. Pittman, Secy.

Ala., Birmingham—Hides, etc.—National Hide & Wool Co., capital \$20,000, incptd. with Abraham Lipsitz, Prest.; Annie Lipsitz, V.-P.; Saml. Ginsburg, Secy., Treas. and Gen. Mgr.

Ala., Crichton—Turpentine, etc.—United States Turpentine Rosin Corp., capital \$1,250,000, Frank W. Boynton, Prest., Mobile, Ala., will establish plant to mfr. turpentine, rosin, etc.; install retorts, crushers, boilers, distilling system, etc.

Ala., Florence—Marble—Jolly Brothers purchased site; will erect building; install marble working plant

Ark., Hope—Creamery—Geo. Dodd, Mgr. Hempstead County Cream Shippers' Assn.; Homer W. Pigg, County Agt.; C. A. Tunnell, Secy. Chamber of Commerce interested in establishing co-operative creamery.

Ala., Mobile—Preservative—International Cotton Protecting Co. will establish \$25,000 plant to mfr. raw cotton preservative.

Ark., Tex., Texarkana—Chamber of Commerce interested in establishing ice cream factory.

Ark., Tex., Texarkana—Creamery—Chamber of Commerce interested in establishing creamery.

Ark., Walnut Ridge—Bakery—City Bakery, Hubbs & Butler, will occupy brick building to be erected; contract let.

Fla., Dade City—Cigars—Tampa-Cuba Cigar Co., Edwin DeLong, Mgr., contemplates erection factory addition.

Fla., Jacksonville—Chemicals, etc.—American Products Co., capital \$1,000,000, incptd. with B. F. Williamson, Prest.; J. T. McCarthy, V.-P.; both Gainesville, Fla.; A. E. Howell, Secy.-Treas.

Fla., Ocala—Clothing—S. & S. Co., incptd. with A. L. Strickland, Prest.; E. C. Smith, Jr., V.-P.; W. W. C. Smith, Secy.-Treas.

Fla., Pensacola—Play Suits, etc.—R. M. Beardsley, of Manufacturing Sales Co., Milwaukee, Wis., interested in organizing \$100,000 company to mfr. play suits, etc. (Lately noted Southern Mill Co., Jno. L. Harding, Representative, contemplates.)

Ga., Atlanta—Rubber—Diamond Holfast Rubber Co., let contract to Griffin Construction Co., at \$25,000 to erect factory building; A. Ten Eyck Brown, Archt., Forsyth Bldg. (Lately noted bids opened.)

Ga., Columbus—Creamery—H. Land, Chrmn. Rural Dept. Chamber of Commerce, plans organizing \$25,000 company to establish creamery.

Ga., Macon—Ice Cream—Kinnett-Odom Ice Cream Co., capital \$400,000, incptd. with J. D. Kinnett, Prest. and Gen. Mgr.; C. A. Odom, V.-P.; R. L. Sparks, Secy.; Herbert Butterworth, Treas.; merged Kinnett Ice & Coal Co., Odom Ice Cream Co., local branch of Chapin-Sachs Corp., and Southern Ice & Coal Corp.

Ky., Corbin—Tonic, etc.—Herbolac Drug & Mfg. Co., Wm. Carson Black, Propr., Box 17, Barbourville, Ky., will establish plant to mfr. blood tonic etc. (See Machinery Wanted—Drug Sundries.)

Ky., Lexington—Batteries—Lexington O. K. Giant Battery Co. increased capital from \$10,000 to 25,000.

Ky., Louisville—Drugs—Lawrence Drug Co., capital \$10,000, incptd. by M. L. McCrea, Chas. E. Skaggs and Lucien M. Hogg.

La., Alexandria—Creamery—W. H. White interested in establishing creamery.

La., Baton Rouge—Dairy Products—Chamber of Commerce, J. W. Mallory, interested in establishing dairy products plant.

La., Cedar Grove—Lamp Chimneys—Shreveport Lamp Chimney Co., Thos. F. McBride, Prest. Salem, W. Va., plans constructing additions to plant; install machinery.

La., Monroe—Creamery—Chamber of Commerce interested in establishing creamery.

Md., Baltimore—Candy—Ariel Candy Co., 3 N. Duncan St., capital \$20,000, inceptd. by Jos. Smotritsky, Samuel Sharp and Carl J. Flom.

Md., Baltimore—Wearing Apparel—Waldorf Mfg. Co., 901 Madison Ave., capital \$20,000, inceptd. by Isaac Waldorf, Sam'l. Carman and Wm. Edgar Byrd.

Md., Baltimore—Jewelry—Jewelry Shop, capital \$20,000, inceptd. by Abraham, Philip and Joseph A. Forschleger; mfrs. jewelry.

Md., Baltimore—Oils, Greases, etc.—Black Lubricant Co., 1305 Maryland Ave., capital \$100,000, inceptd. by James G. Paugh, Frank H. Kelley and Peter Peck.

Md., Elkridge—Tollet Articles—Patapasco Specialty Co., capital \$30,000, inceptd. by Gabriel L. Retalliat, J. Frank Harman and Geo. W. Alcorn, Jr.

Md., Westport Sta., Baltimore—Cork Products—Spanish-American Cork Products Co., Oscar T. Harms, Prest., acquired plant of Spanish-American Cork & Specialty Co.; is expending \$50,000 to install additional machinery; contemplates later expending \$150,000 for expansion. (Lately noted to rebuild burned plant.)

Miss., Clarksdale—Bakery—Crescent Bakery Co., capital \$20,000, inceptd. by S. G. Sack, E. W. Mercer; both Clarksdale; H. Goodman, Jonestown, Miss.

Miss., Clarksdale—Syrup, etc.—Delta Cola Co., capital \$50,000 inceptd. by Arch M. Crump, F. P. Fitzgerald and M. C. Tyler; plans establishing \$30,000 plant to mfr. and bottle syrups.

Mo., Joplin—Creamery—Gateway Creamery Co., capital \$60,000, inceptd. by F. W. Ibinger, W. P. Keltner and J. B. Dunlap.

Mo., Mexico—Banking Supplies—Continental Banking Supply Co., B. F. Rhodus, will establish plant.

Mo., St. Louis—Belting—General Mfg. Co., 18th and Pine Sts., leased 2-story building; will improve; mfrs. fire department equipment, leather belting, rubber goods, etc.

Mo., St. Louis—Neckwear—Frank & Meyer Neckwear Co., Simon M. Frank, 1126 Washington Ave., leased part of building; will alter and repair to mfr. neckwear.

N. C., Burlington—Cigars—Burlington Cigar Corp., capital \$25,000, organized with Claud May, Prest.

N. C., Graham—Candy—Smith-Williams Co., capital \$25,000, inceptd. by W. P. Smith, Graham; B. J. and J. Wilson Williamson; both Saxapahaw, N. C.

S. C., Abbeville—Bakery—Abbeville Bakery, H. L. Moore, Propr., will expend \$2,000 to install oven in bakery.

S. C., Newberry—Creamery—Chamber of Commerce interested in establishing creamery.

S. C., York—Bakery—W. L. Jamison, Shandon Hotel, will establish bakery.

Tenn., Carthage—Creamery—Smith County Co-operative Creamery Assn., Jno. D. Robinson, will erect building; establish creamery. (Lately noted interested.)

Tenn., Chattanooga—Creamery—Dixie

Creamery Co., capital \$10,000, inceptd. by J. S. Walter, G. O. Kellerhals and E. T. Turner.

Tenn., Columbia—Coca-Cola—Coca-Cola Bottling Co. will expend \$12,000 to erect 2-story brick construction building.

Tenn., Knoxville—Tailoring—Art Tailoring Co., capital \$35,000, inceptd. by S. F. Casenburgh, Harry Acuff and Walter Luttrell; P. W. Foster, Res. Mgr.

Tenn., Memphis—Cotton Seed Products—Consolidated Cotton Seed Operating Co., capital \$150,000, inceptd. by A. B. Wade, J. H. Watson and N. W. Jackson.

Tex., Brownsville—Electrical—Southwestern Electrical Mfg. Co., capital \$20,000, inceptd. by L. L. Lane, V. A. Gavito and J. J. Garica.

Tex., Clarendon—Monuments—Clarendon Monument Works, inceptd. by T. O. Collier, J. B. and J. C. McCarley.

Tex., Waco—Rubberizing—Automatic Tire Machine Corp., W. A. Shaffer, Prest., Buffalo, N. Y., contemplates establishing plant to rubberize cotton; utilize short staple cotton.

Va., Fredericksburg—Clothing—G. & H. Mfg. Corp., Hanover St. Ext., let contract to erect factory addition.

W. Va., Nitro—Chemicals—Seydel Chemical Co., capital \$1,500,000, inceptd. by Richard S. Blecknell, Nitro; Herman Seydel, 86 Forest St., Jersey City, N. J.; Jas. B. Pitcher, 120 Broadway, New York.

W. Va., Ransom—Saddlery—Goetz Saddlery Co., capital \$50,000, inceptd. by Geo. B. and Hiram A. Goetz, Ransom; Forrest A. Brown, Charles Town, W. Va.

W. Va., Salem—Glass—Salem Flint Glass Co., capital \$10,000, inceptd. by H. L. Bee, B. S. Bischoff and R. F. Davis; all Charleston, W. Va.

W. Va., Weston—Glass—Inter-state Window Glass Co., plans rebuilding plant burned at \$25,000 loss.

Motor Cars, Garages, Tires, Etc.

Ala., Selma—Filling Station—Gulf Refining Co. will erect filling station.

Ark., Gravette—Garage—R. R. White will erect 50x120-ft. garage; has plans.

Fla., Jacksonville—Motors—Moon Motor Co., capital \$50,000, inceptd. with M. M. Cooper, Prest.; Hector Cameron, Secy.-Treas.

Fla., Jacksonville—Automobiles—William C. Thomas Co., capital \$50,000, inceptd. with William C. Thomas, Prest.-Treas.; W. C. Christmas, Secy.

Fla., St. Petersburg—Garage—S. S. Harris will erect 2 story garage, frame construction.

Fla., Tampa—Vulcanizing—Chester M. Strickland and J. W. Corey purchased establish plant, plans installing equipment.

Fla., West Palm Beach—Filling Station—Thand & Knight will erect 1 story filling station, brick, tile and concrete construction; H. G. Mitchell, builder.

Ga., Athens—Filling Station—Dozier Land Co. contemplates erecting \$20,000 filling station.

Ga., Atlanta—Garage—Ansley Garage Co., 612 N. Boulevard let contract to J. W. Jenkins to erect brick and steel garage; cost \$14,000.

La., Jeaneratte—Garage—Beaullieu Motor Co., E. J. Beaullieu, Secy.-Treas.-Mgr., let contract to McDaniel & Hartford, Beaumont, Tex., at \$18,000, to construct 130x100 ft. fireproof garage; F. W. Steinman & Son, Archts., 517 Kyle Bldg., Beaumont, Tex. (Lately noted inviting bids.)

Md., Baltimore—Continental Garage & Service Corp., 715 Gaither Estate Bldg., 111 N. Charles St., John C. Tolson, Mgr., 82 Gunther Bldg. will erect 5 story, concrete, fireproof building; 120,000 sq. ft.; storage of 500 cars, with complete repair shop, paint top and upholstery dept., accessory and salesroom, etc.; install gasoline system, lubricating oil tanks, air compressor, etc. Lately noted organized, to erect building, etc. (See Machinery Wanted—Automobile Repair Shop Equipment; Gasoline System; Tanks; Air Compressor.)

Md., Baltimore—Tires—Reebilt Tire Co., of Maryland, 301 S. Catherine St., inceptd. by John C. Young, Joseph Schrot and Edward Parenteau; repairing rubber and rubber composition tires, etc.

Md., Baltimore—Garages—James Keely, 1123 Poplar Grove St. will erect two 1-story garages, 200 x 20-ft. and 100 x 20-ft., brick construction.

Md., Barton—Garage—Wilson Garage Co., capital \$10,000, inceptd. by Ralph S. Wilson, Oscar C. Enos and Floyd Lininger.

Md., Salisbury—Garage—Hooper S. Miles will erect garage.

Miss., Senatobia—Garage, etc.—McCormick & Son, capital \$10,000, inceptd. by A. L., R. R. and Estelle McCormick.

Okla., Okmulgee—Tires, etc.—Oklahoma Tire Supply Co., capital \$50,000, inceptd. by Herman and S. M. Sandtlen, Okmulgee, Okla.; A. Lack, Henryetta, Okla.

Tenn., Loudon—Garage—Miller & Robinson will rebuild garage, brick construction. (Lately noted burned at loss of \$20,000.)

Tex., Houston—Automobiles—A. E. Lundell Auto Co., capital \$20,000, O. F. Yearly, A. E. and C. W. Lundell.

Tex., Mexia—Automobile Supplies—Stuart Auto Supply Co., capital \$10,000, inceptd. by S. J. Stuart, J. M. Rush and Albert Bogassa.

Tex., San Antonio—Tires, etc.—Hagner Tire & Battery Co., capital \$15,000, inceptd. by F. H. Hagner, L. B. Alford and G. H. Mack.

Tex., Sherman—Garage—Southern Garage, capital \$30,000, inceptd. by J. W., M. E. and L. F. Crook.

W. Va., Charleston—Garage—G. H. Cobb will erect 1 story 51x180-ft. garage; brick and wood construction.

W. Va., Fairmont—Allied Motors Corp., capital \$25,000, inceptd. by J. W. Reeves, C. E. Hulderman and A. P. Brady.

Railways.

Tex., Deweyville—Sabine & Neches Railway Co., capital stock \$100,000, incorporated to build from Ruliff westward via Deweyville to Gist, Tex., about 16 mi. Directors, R. J. Wilson, J. P. Hull, and C. C. Smith, of Deweyville; A. J. Peavy, R. T. Moore and C. C. Cary, of Shreveport, La.; J. B. Smyth and C. E. Walden, of Beaumont, Tex., and W. H. Mangan, of Westlake, La.

Tex., Nacogdoches—Nacogdoches & South-eastern Railroad Co. reported contemplating extension southwest from Nacogdoches, 28 mi. H. W. Whited is Gen Mgr. at Nacogdoches.

Railway Shops, Terminals,

Ala., Mobile—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky. plans erecting shop and train yard, cost \$1,649,000.

La., New Orleans—Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky. plans improved freight facilities, cost \$942,000.

Road and Street Construction.

Ala., Anniston—Sunset Land Co. will pave streets, construct sewer and water systems in 150 to 450 acres to be developed as residential section.

Ala., Bessemer—Jefferson County Board of Revenue let contract to Dunn Construction Co., Birmingham, Ala., at \$400,000 for construction of 10 mi. paved road beginning at 12th Ave. and 19th St., Bessemer and extending to Fairfield.

Ala., Camden—State Highway Comsn. of Alabama, Montgomery, Ala. let contract to Fennell Co., Tuscaloosa, Ala., at \$53,000 to construct $\frac{5}{8}$ mi. gravel road between Catherine and Lamison. (Lately noted.)

Ala., Fort Payne—State Highway Comsn., Montgomery, Ala. will construct 17.75 mi. chert highway in DeKalb County from Fort Payne to Collinsville; cost \$167,329.64; bids until Dec. 2. (Lately noted.)

Ala., Huntsville—City will improve streets. Address The Mayor.

Ala., Mobile—Mobile County will construct 2.6 mi. Half Mile and 12 mi. clay gravel road on Gray Bay-Union Church road; bids until Dec. 1; S. D. Adams, County Highway Engr. (See Machinery Wanted—Road Construction.)

Ala., Tusculumbia—State Highway Dept., Montgomery, Ala. plans constructing road in Muscle Shoals Dist. from Tennessee river on northern side of county connecting completed Jackson highway on south on top of mountain; will let contract in December.

Fla., Daytona—City let contract to Atlantic Bitulithic Co., 1205 Virginia Railway & Power Bldg. Richmond, Va. to construct 120,000 sq. yds. paving and sewers; cost about \$100,000. Lately noted. (See Sewer Construction.)

Fla., Kelsey (P. O. West Palm Beach)—Harry S. Kelsey let contract to E. O. Greynolds for street paving.

Fla., Madison—Madison County Comms. will vote Dec. 14 on \$750,000 bonds to construct 60 mi. 16-ft. hard-surface roads connecting Jefferson and Suwannee counties on State Road No. 1.

Fla., Quincy—City plans street paving. Address The Mayor.

Fla., Tampa—Hillsboro County will repair Bayshore boulevard and other roads; \$100,000. Address County Comms.

Fla., Tavares—Lake County Comms. will sell \$600,000 bonds for constructing 60 mi. hard-surface roads.

Ga., Cedartown—Polk County will sell \$100,000 road construction bonds; T. W. Schlestett, Clk.

Ga., Decatur—City, P. P. Pilcher, Mgr. let contract to MacDougall Construction Co., Atlanta, Ga., at \$25,050 to construct 11,000 yds. asphalt concrete paving on Sycamore St. (Previously noted inviting bids.)

Ga., Greensboro—Greene County will construct 14 mi. Greene highway from Greensboro to Watson Springs; \$300,000 State aid. Address County Comms.

Ga., Jackson—Butts County will construct roads and bridges; plans voting on \$150,000 bonds. Address Commr. J. O. Gaston.

Ga., Savannah—City, J. W. Motte, Director Public Works will pave 37th St., 3,900 sq. yds.; resurface Bay St., 31,018 sq. yds.; Whitaker St., 14,640 sq. yds.; Habersham St., 2,033 sq. yds.; bids until Nov. 16. (See Machinery Wanted—Paving.)

Ky., Benton—Marshall County will improve gravel highways; vote in December on \$300,000 bonds. Address County Comms.

Ky., Covington—Kenton County will con-

struct roads and bridges; voted Nov. 8 on \$500,000 bonds. Howard Stephens, Treas.

Ky., Louisville—Jefferson County sold \$17,200 bonds for improvement of Henry Schubnell highway, Carr Township. Address County Comms.

Ky., Princeton—Caldwell County will complete highway across county from Crittenden-Caldwell line to Princeton; 14 mi. \$50,000. Address County Comms.

La., Donaldsonville—Ascension Parish Road Dist. No. 4 will sell \$90,000 road construction bonds; R. J. Chanvin, Treas.

Md., Baltimore—Paving Comsn. let contract to Arundel Construction Co., Knickerbocker Bldg. at \$3,370.60 for concrete pavement in bed of Iona Terrace from Harford Road to point 8000-ft. east; will let contract to A.ello Construction Co., Knickerbocker Bldg., at \$1,953 and Geo. Long Contracting Co., 1st Ave. and 12th, at \$2,657 for paving McComas and other portions of streets; will invite bids for paving Calloway Ave., Clement, Stevenson and other streets.

Miss., Gulfport—City Comms let contract to Geo. Hopkins, at \$8,920 to pave 1 mi. sidewalks.

Mo., Bloomfield—State highway Dept., Jefferson City, Mo. will construct 8.976 mi. State road from Dexter eastward and westward; Stoddard County; cost \$76,980; Federal Aid Project 179; M. S. Murray, Div. Engr., Sikeston, Mo.

Mo., Clayton—St. Louis County will grade, construct culverts, bridge, one course cement concrete pavement 18 to 20-ft. wide on 7.03 mi. LeMay Ferry State road from St. Louis southwardly; cost \$291,318.55; bids opened Nov. 16; H. D. Griffith, Div. Engr., DeSoto, Mo. Lately noted. (See Machinery Wanted—Road Construction.)

Mo., Grant City—State Highway Dept., Jefferson City, Mo. will construct 2.841 mi. State road from Grant City southward; Worth County, State Aid Project 20,117, Worth County; A. C. Singley, Div. Engr., St. Joseph, Mo.

Mo., Kennett—State Highway Dept., Jefferson City, Mo. will construct 9.022 mi. State road from Clarkton northward and southward; Dunklin County, Federal Aid Project 183; M. S. Murray, Div. Engr., Sikeston, Mo.

Mo., Marshfield—State Highway Dept., Jefferson City, Mo. let contract to Kelly Construction Co., Weaubleau, Mo. to improve state road.

Mo., Sturgeon—Hinton & Sturgeon Special Road Dist. will expend \$18,000 for constructing 4 mi. road north of Columbia and extending to Riggs.

N. C., Charlotte—City will pave 14 mi. streets; W. S. Stancill, Commr. Public Works. (Lately noted.)

N. C., Charlotte—City will construct 208,000 sq. yds. paving; bids opened Nov. 12; Jos. Firth, Engr.

N. C., Durham—North Carolina State Highway Comsn, Raleigh, N. C., let contract to J. P. Dicus, Burgaw, N. C., at \$5,582.40 for Project 400 consisting of .47 mi. grading, roadway and bridges in City of Durham.

N. C., Durham—North Carolina State Highway Comsn, Raleigh, N. C. let contract to C. D. Riggsbee, Durham, N. C. at \$74,396.70 for Project 410 consisting of 2.30 mi. roadway from end pavement to Orange county line; reinforced concrete pavement; structures at \$1,900.20. (Lately noted inviting bids.)

N. C., Greensboro—Guilford County will improve 46 mi. roads with sand-clay tops including 4 mi. Oak Ridge to Stokesdale road; 11 mi. Summerfield depot to Brown Summit via Hilledale, 15 mi. Gibsonville-Jullan road;

road from Frank Bennett's place via old Martinville; 6 mi.; 10 mi. road beginning at Kivett's road crossing Deep river, 10 mi.; will let contracts. Address County Comms.

N. C., Hillsboro—North Carolina State Highway Comsn, Raleigh, N. C. let contract to J. F. Mulligan Construction Co., North Wilkesboro, N. C. at \$17,488.15 for Project 455 in Orange County consisting of 4.19 mi. soil road from Chapel Hill to Chatham county line; structures to P. R. Ashby, Raleigh, N. C. at \$24,708. (Lately noted inviting bids.)

N. C., Oxford—North Carolina State Highway Comsn, Raleigh, N. C. let contract to Robt. G. Lassiter Co., Oxford, N. C. at \$145,207.52 for roadway and structures in Granville County, Project 427. (Lately noted inviting bids.)

N. C., Raleigh—North Carolina State Highway Comsn, Raleigh, N. C. let road contracts as follows: Union Paving Co., 30th and Locust Sts, Philadelphia, P., at \$220,269 for Project 481 in Wake County from Cary to Durham county line, 7.4 mi.; roadway structures to P. R. Ashby, Raleigh, at \$742.25; R. M. Hudson Co., Salisbury, N. C. at \$172,225.24 for Project 482 in Wake County from Garner to Johnson county 6.64 mi. structures at \$2,019.50; C. D. Riggsbee, Durham, N. C. at \$18,172.50 for Project 483 consisting of .54 mi. reinforced concrete pavement. (Lately noted inviting bids.)

N. C., Raleigh—State sold \$5,000,000 road construction bonds; B. R. Lacy, Treas.

N. C., Shelby—City will construct about 150,000 yds. paving, etc.; cost \$300,000; Mees & Mees, Engrs., Charlotte, N. C. (Lately noted.)

N. C., Winton—Hertford County sold \$250,000 bonds for construction of roads; F. G. Hines, County Road Supt.

Okla., Ada—Pontotoc County will construct roads and build bridges; vote Dec. 6 on \$880,000 bonds. Address County Comms.

Okla., Ardmore—Carter County Comms. votes Nov. 15 on \$500,000 bonds to construct roads. (Supersedes recent item.)

Okla., Bartlesville—Washington County will construct roads and bridges; voted \$700,000 bonds; Neva M. Scott, Clk. (Lately noted to vote.)

Okla., Bartlesville—City Comms. will pave 12 blocks; invites bids.

Okla., Chickasha—City, Mayor O. Coffman will construct 12 mi. sidewalks; cost \$50,000.

Okla., Claremore—Rogers County will vote on bonds for construction of White River Trail. Address County Clk.

Okla., McAlester—Pittsburg County Comms. will vote on \$750,000 bonds to improve Jefferson highway through Pittsburg county north and south and Postal highway through county east and west.

Okla., Sapulpa—Creek County Comms. let contract to James Harris, Oilton, Okla. for cherting 8 mi. Albert Pike highway; also to grade 1 mi. Drumright-Cushing road.

Okla., Tulsa—City will pave Alley Block 180, Alley Block 4, Alley Block 41, etc.; bids opened Nov. 17; Mrs. Frank Seaman, City Auditor.

S. C., Columbia—City will pave 12 blocks; sheet asphalt; invites bids. Address The Mayor.

S. C., Florence—City will pave streets; vote Dec. 20 on \$350,000 bonds. Address The Mayor.

Tenn., Nashville—Board Public Works plans 10 mi. street paving. Address Mayor Wilson.

Tex., Alpine—Brewster County plans im-

proving Highway No. 12 thru Brewster; cost about \$200,000; M. S. Burke, County Judge.

Tex., Beaumont—Jefferson County will vote Dec. 20 on \$2,000,000 bonds to construct roads and build bridge across Neches river. Address County Commrs.

Tex., Belton—Bell County will reconstruct highway No. 36 from Belton to Lampassas county line; cost \$55,359.25; J. W. Sutton, County Judge; S. J. Treadway, County Engr., Temple, Tex.

Tex., Brenham—City plans paving streets. Address The Mayor.

Tex., Dallas—Dallas County will construct Irving road in Dallas County; will invite bids; Arch C. Allen, County Judge; Nagle, Witt-Rollins Engineering Co., Engrs.

Tex., Denison—City let contract to Kaw Paving Co., Topeka, Kans. to construct 25,000 sq. yds. paving; cost \$90,000; D. C. Lipscomb, Engr. (Lately noted inviting bids.)

Tex., Edinburg—Hidalgo County will construct roads; vote Nov. 22 on \$1,250,000 bonds. Address County Commrs.

Tex., El Paso—City will vote Dec. 27 on \$240,000 bonds for street improvements; Chas. Davis, Mayor. (Lately noted voting Oct. 11.)

Tex., Georgetown—Williamson County plans constructing 5.9 mi. Highway No. 20 from Liberty Hill to Burnett county line; gravel surfacing; R. A. Nichols, County Engr.

Tex., Karnes City—Karnes County plans to construct roads in Kenedy Road Dist. No. 4; \$300,000 available; O. N. Powell, County Engr.

Tex., La Grange—Fayette County let contract for 11.27 mi. Highway No. 3 as follows: Lake Robertson, Schlenburg, Tex. for concrete work and M. M. Cravens Grading Co., Fredericksburg, Tex. for grading and surfacing. (Lately noted inviting bids.)

Tex., McKinney—Collin County will surface 25 mi. road; rock base and shipped gravel top; bids opened Nov. 9; F. W. Cawthon, County Engr.

Tex., Orange—City Comsn. plans resurfacing 50 blocks.

Tex., Palestine—City let contract to Gulf Bitulithic Co., Houston, Tex. to construct bitulithic paving; \$250,000 available; O. L. Forsgard, Engr. (Lately noted inviting bids.)

Tex., Pecos—Reeves County plans constructing 21.6 mi. 16-ft. gravel road on Highway No. 1; cost \$154,000; 26.85 mi. 16-ft. gravel road on Highway No. 27; cost \$99,300; J. F. Ross, County Judge.

Tex., Rusk—Cherokee County, C. F. Gibson, Judge, will construct roads in Dist. No. 1.

Tex., San Angelo—City plans to pave 4 mi. streets; vote Nov. 29 on \$150,000 bonds; L. L. Lagging, Engr.

Tex., San Marcos—Hays County will construct 8 mi. Dripping Springs-Wimberly road; 8,000 cu. yds. grading; 2,000 cu. yds. gravel; bids opened Nov. 12; J. R. Wilhelm, County Judge.

Tex., Tyler—Smith County sold \$300,000 road construction bonds. Address County Commrs.

Tex., Vernon—Wilbarger County will construct roads; voted \$600,000 bonds. Address County Commrs. (Lately noted to vote.)

Tex., Wharton—Wharton County plans constructing 6.4 mi. Highway No. 3 from Fort Bend county line to Nottawa; cost \$104,000; W. G. Davis, County Judge; Nagle, Witt-Rollins Engineering Co., Engr.

Va., Charlottesville—Albemarle County will construct roads in Scottsville Dist.; about 30 mi; vote on \$205,000 bonds. Address County Supvrs.

Va., Damascus—Town, J. M. King, Mayor plans street paving.

Sewer Construction.

Ala., Anniston—Sunset Land Co., I. A. DeHart, Secy.-Treas., will install sewer system in 150 to 450-acre site to be developed for residential section. (See Land Development.)

Fla., Daytona—City, A. Mulligan, Mayor, let contract to Atlantic Bitulithic Co., 1205 Virginia Railway & Power Bldg., Richmond, Va., at \$100,000, to construct sewers and lay 120,000 sq. yds. paving. See Road and Street Construction. (See Machinery Wanted—Pipes; Cement, etc.)

Fla., Inverness—City voted \$75,000 sewer and water bonds; construct 5 mi. sewers and 5 mi. water-works. Address The Mayor. (Lately noted to vote.)

Md., Frostburg—City will extend sewer system; lay 4 mi. sewers; W. M. Tyler awarded contract for pipe. Address The Mayor.

Miss., Crystal Springs—Town contemplates installing sewerage system. Address The Mayor.

Mo., Carthage—City plans expending \$6,500 to extend sewer system; lay 3-in. vitrified clay sewer pipe; bids opened; Frank B. Newton, City Engr. Lately noted. (See Machinery Wanted—Sewers.)

Mo., Springfield—Welch Packing Co., let contract to Jno. Spandri to construct 1½ mi. sewer at plant.

Mo., Versailles—City will install sewer system; vote Nov. 22 on \$21,000 bonds. Address The Mayor. (Lately noted to vote.)

N. C., Asheville—City, P. H. Schoepf, City Pur. Agt., will construct 530 ft. sewers in Deaver St.; Kelly & Wilson, bidders; B. M. Lee, City Engr. (Lately noted bids until Oct. 31.)

N. C., Charlotte—City, W. S. Stancill, Commr. of Public Works, will construct 70,000 ft. 5 to 8-in. sewers; bids opened; Joseph Firth, City Engr. Lately noted plans issuing bonds. (See Machinery Wanted—Sewers.)

Okla., Chickasha—City, O. Coffman, Mayor, will construct lateral sewers, including Y's manholes and appurtenances in Dist. No. 30; bids opened; J. R. Wellborn, Bldg.; Jno. C. Milliken, City Engr. Lately noted voted bonds. (See Machinery Wanted—Sewers.)

Okla., Tulsa—City, T. D. Evans, Mayor, will construct storm sewers in Trenton Ave., 11th St., 1st St. and Frisco Ave., etc.; bids opened Nov. 14. C. E. Griggs, City Engr.

Okla., Welch—City plans constructing disposal plant and 5 mi. sewers. Address The Mayor.

Okla., Wilson—City, Isaac Roberts, Mayor, will extend sewer system; voted \$20,000 bonds. (Lately noted to vote.)

S. C., Columbia—City will extend sewer and water systems to Wales Gardens. Address The Mayor.

S. C., Florence—City will construct 1,200 ft. 18 and 36-in. sewer; 4 catch basins and manhole on Cheves St.; bids opened; Adams & Ervin, Engrs., Masonic Temple.

S. C., Greenville—City, H. C. Harvley, Mayor, plans expending \$100,000 to extend sewer system; W. D. Neaves, City Engr. (Lately noted plans voting on bonds.)

Tenn., Lenoir City—City, Mayor Witt, will install sewer system; voted \$150,000 bonds.

Tex., Dalhart—City plans constructing sewerage disposal plant and extend sewer system; \$25,000 available; invites bids soon; W. D. Howren, Conslt. Engr., Amarillo, Tex.

Tex., Decatur—City, R. L. Thompson, Clk., will extend sewer and water systems; approximate cost \$175,000; bids until Dec. 1; Henry Exall Elrod Co., Conslt. Engrs., Dallas, Tex. Lately noted. (See Machinery Wanted—Sewers.)

Tex., El Paso—City, Chas. Davis, Mayor, will extend sewer system; vote Dec. 27 on \$250,000 bonds; also install sewerage disposal plant; vote Dec. 27 on \$125,000 bonds. (Lately noted to vote Oct. 11.)

Tex., Fort Worth—City, E. R. Cockrell, Mayor, will expend \$725,000 to construct disposal plant; invites bids; Hawey & Sands, Conslt. Engrs.; M. B. Lord, Water Commr. (Lately noted.)

Tex., Garland—City, R. D. Murphree, Mayor, will expend \$100,000 to extend sewer and water systems. (Previously noted voted bonds.)

Tex., Graham—City will extend sewer and water system; approximate cost \$180,000; bids until Nov. 22; Henry Exall Elrod Co., Conslt. Engr., Dallas, Tex. (See Machinery Wanted—Sewers.)

Va., Abingdon—City, A. P. Hutton, Mayor, is expending \$50,000 to construct sewerage system.

W. Va., Ceredo—Town will install sewer system; vote Nov. 19 on \$23,000 bonds. Address The Mayor

W. Va., Morgantown—City will install sewer system; construct city hall, etc.; plans voting on about \$1,000,000 bonds; Jos. V. Funderburk, City Engr. (Lately noted contemplated.)

Telephone Systems.

N. C., Raleigh—Southern Bell Telephone & Telegraph Co., Atlanta, Ga. let contract to Barge-Thompson Co., Atlanta, Ga. to remodel residence for use as operators quarters with frame connecting passage way to existing central office building; ordinary construction. (Lately noted.)

Textile Mills.

N. C., Burlington—Hosiery—Burlington Textile Corp., capital \$15,000, organized by W. W. Brown, H. F. Mitchell and E. D. Fowler.

Okla., Okmulgee—Cotton Batting—Cotton Products Co., capital \$100,000, inceptd. by W. D. Egolf and Max Davidson; leased 2-story building; install machinery; daily output 6,000 lbs. cotton batting.

Water-Works.

Ala., Anniston—Sunset Land Co., I. A. DeHart, Secy.-Treas., will install water-works in 150 to 450-acre site to be developed for residential section. (See Land Development.)

Fla., Fort Lauderdale—City will extend water mains; voted \$27,500 bonds. Address The Mayor.

Fla., Inverness—City voted \$75,000 water and sewer bonds; construct 5 mi. water-works and 5 mi. sewers. Address The Mayor. (Lately noted to vote.)

Ga., Perry—City, S. P. Crowell, Clk., will extend water-works; construct 50,000-gal. reservoir, filtering plant; install machinery; voted \$12,000 bonds; O. H. Sheffield, Engr., Atlanta, Ga. (Lately noted to vote.)

Miss., Louisville—City, Edw. M. Livingston, Mayor, will repair water and light plant; vote Nov. 29 on \$15,000 bonds.

Mo., Caruthersville—City will enlarge and improve water-works; plans voting on \$60,000 bonds. Address The Mayor.

Mo., Versailles—City will install water-works; vote Nov. 22 on \$60,000 bonds. Address The Mayor. (Lately noted to vote.)

N. C., Winston-Salem—City, W. H. Holcombe, Clk., will lay about 10,000 ft. 20-in. and 500 ft. 12-in. main; plans installing 3 additional pumps at Salem station. (Lately noted.)

Okla., Wilson—City, Isaac Roberts, Mayor, will improve water-works; voted \$35,000 bonds. (Lately noted to vote.)

S. C., Columbia—City will extend water and sewer systems to Wales Gardens. Address The Mayor.

S. C., Greenville—City, H. C. Harvley, Mayor, plans expending \$300,000 to extend water-works; lay additional mains from reservoir to city; erect additional stand pipe; H. W. Perry, Supt. Water-Works. (Lately noted plans voting on bonds.)

Tenn., Nashville—City, Felix Z. Wilson, Mayor, will construct pumphouse for Belmont Heights high service station; bids opened; S. H. McKay, City Clk.

Tex., Alta Loma—City plans improving water-works; Jno. L. Durland, Engr., Water & Fuel Service Engr., Southern Pacific Lines, Houston, Tex.

Tex., Decatur—City, R. L. Thompson, Clk., will extend water and sewer systems; construct concrete dam; approximate cost \$175,000; bids until Dec. 1; Henry Exall Elrod Co., Conslt. Engrs., Dallas, Tex. Lately noted. (See Machinery Wanted—Water-Works.)

Tex., Edinburg—City, A. J. Ross, Mayor, let contract to Gulf Machinery and Ship Supply Co., 2128 Strand, Galveston, Tex., at \$16,995, to construct water-works and power plant; erect 60,000-gal. capacity tank with pump supplying 150 gals per min; approximate cost \$5,000; install \$2,000 pump; H. E. Wilcox, City Engr. Lately noted. (See Machinery Wanted—Tank; Pump.)

Tex., El Paso—City, Chas. Davis, Mayor, will extend water-works; vote Dec. 27 on \$500,000 bonds. (Lately noted to vote Oct. 11.)

Tex., Garland—City, R. D. Murphee, Mayor, will expend \$100,000 to extend water and sewer systems. (Previously noted voted bonds.)

Tex., Graham—City will extend water and sewer systems; approximate cost \$180,000; bids until Nov. 22; Henry Exall Elrod Co., Conslt. Engrs., Dallas, Tex. (See Machinery Wanted—Water-Works.)

Tex., Olney—City, H. P. McCracken, Mayor, will construct earthen dam; approximate cost \$35,000; bids opened; Henry Exall Elrod Co., Conslt. Engrs., Dallas, Tex. Lately noted. (See Machinery Wanted—Water-works.)

Tex., Plano—City plans expending \$8,000 to \$10,000 to improve water-works. Address The Mayor. (Previously noted.)

W. Va., Mullens—City plans installing 150,000-gal. daily capacity plant; bids in about 30 days. Address The Mayor.

Woodworking Plants.

Ala., Winfield—Cooperage—Poe Cooperage Co., inctpd. by F. S. Treadaway, E. R. Poe and others.

Ala., Jackson—W. T. and W. G. McGowin acquired Alabama Veneer plant, will erect planing mill, dry sheds; etc.; also plans building railroad across Bassett's creek to timber tract.

Ala., Montgomery—Montgomery Stave & Cooperage Co., A. R. Tickner, Propr., will rebuild plant burned at loss of \$50,000.

Fla., Tallahassee—Furniture, etc.—Smith & Russell, capital \$20,000, inctpd. with T. W. Russell, Prest.; W. W. C. Smith, Secy.

Ga., Abbeville—Wagons, etc.—Paxson Tie & Lumber Co., is establishing plant to mfr. wagon and plow material from oak-timber.

N. C., Hendersonville—Furniture—Walker Furniture Co., capital \$30,000, inctpd. by M. C. Blythe M. C. and Agnes M. Walker.

N. C., Mt. Pleasant—Floorings, etc.—L. C. Miller will rebuild 45x90-ft. brick building (lately noted burned at loss of \$20,000) install woodworking mchy. for mfr. of floorings, ceilings, window and door frames, etc. (See Machinery Wanted—Woodworking Machinery.)

N. C., Wilson—Furniture—Barbour Furniture Co., capital \$25,000, inctpd. by D. J. Barbour, Wilson; W. A. and Z. B. Bullock, Rocky Mount, N. C.

W. Va., Parkersburg—Handles—Parkersburg Handle Co., capital \$25,000, inctpd. by J. Loyal Gilbert, Jesse L. Cramer and M. C. Morlan.

Fire Damage.

Ala., Anniston—Barber Memorial Female Seminary; loss \$100,000; Dr. J. B. Shearer, Prest.

Ala., Gadsden—Mrs. Charlie Martin's residence on Turrentine Ave.; loss \$10,000.

Ala., Greenville—Planters Mercantile Co.'s cotton warehouse.

Ala., Montgomery—Thompson Hotel, Luke Thompson, Mgr.; loss \$10,000 to \$15,000.

Ala., Montgomery—Montgomery Stave & Cooperage Co.'s plant; loss \$50,000.

Ark., Elaine—Delta Gin & Mercantile Co.'s plant; loss \$10,000; owned by Alex. and J. D. Crowe, and A. G. Burke.

Ark., Little Rock—George E. Shelton Produce Co.'s building at 422 E. Markham St.

Ark., Portland—T. H. Hann, R. L. Long, Peoples Bank and Bain-Adam's Co.'s buildings.

Ark., Waldo—J. C. Loves' planing mill.

Fla., De Land—Putnam Inn; loss \$65,000. Address The Proprietor.

Ga., Berlin—J. C. May & Son's store.

Ga., Camilla—M. H. Metcalf's grist mill; loss \$10,000.

Ga., Hillsboro—Ridley & Turner's warehouse.

Ga., Jackson—E. A. Fincher's residence at Finchersville; loss \$15,000.

Ga., Macon—St. Stanislaus' College; loss \$150,000; Rev. Father J. Depotter, Prest.

Ga., Sale City—Robertson Drug Co., Watkins Pharmacy and Sale City Hardware Co.'s buildings.

Ga., Sycamore—R. M. Monroe's warehouse. La., Baton Rouge—Louisiana State University experiment station office; loss \$40,000.

La., Baton Rouge—Louisiana State University chemical laboratory; loss \$50,000.

La., New Orleans—Joseph Sternberg & Son's building at 223-5 N. Peters St.; loss \$25,000.

Md., Kensington—Municipal Building. Address The Mayor.

Md., Marion—W. R. Whittington's store; Robt. H. Whittington's dwelling, barns and warehouses; Dr. I. A. B. Allen's office building.

Miss., Hattiesburg—Court Street Methodist Church. Address The Pastor.

Mo., St. Louis—Haynes-Langenberg Mfg. Co.'s plant at 404 Forrest Park Bldg.; total loss \$125,000.

Mo., St. Louis—Front Rank Range Co.'s plant, Forest Park Boulevard and Sarah St.

N. C., Asheville—Grove Park School for Girls, Rev. T. A. Cosgrove, Principal; loss \$25,000.

N. C., Asheville—T. C. Smith Drug Co.'s warehouse on S. Lexington Ave.

N. C., Greensboro—Greensboro Country Club's building; loss \$40,000; Pierce Rucker, Prest.

N. C., Winston-Salem—Building at 7th and Chestnut Sts. occupied by Brown-Rogers Hardware Co. and Pilot Candy Co.; loss \$10,000.

Okla., Avant—Midland Valley R. R.'s depot; Chas. Kaighn, Ch. Engr.; Muskogee.

Okla., Idabel—Howell Brother's ginnery; loss \$10,000.

S. C., Anderson—Adger Cobb and Mrs. Lillie Parker's residences.

S. C., Cheraw—B. Frank Pegues' residence.

S. C., Owings—J. P. Kellett's ginnery, loss several thousand dollars.

Tenn., Memphis—Gen. John H. McDowell's residence on Southern Ave.; loss \$8000.

Tenn., Tiptonville—A. E. Markham's cotton house.

Tex., Bartlett—Lawrence Bros.' warehouse; loss \$10,000.

Tex., Beaumont—Rosedale School. Address Board of Education.

Tex., Brownwood—Harper Hotel; loss \$10,000. Address The Proprietor.

Tex., Charco—Chas. Rhodes' residence.

Tex., Dallas—T. F. Hart Investment Co.'s warehouse, Preston St. and Pacific Ave.

Tex., Georgetown—J. E. Harwell's store; Dr. W. M. Shultz's building

Tex., Houston—Tailor & Cleaners' shop owned by Joe Williams, 1515 Shearn St.

Tex., Houston—B. F. Culpepper's apartment house at Austin and Tuam Sts.; loss \$25,000.

Tex., Loving—Daniels Hotel. Address The Proprietor.

Tex., Marshall—Wiley College dormitory.

Tex., Munday—Campbell Mercantile Co., Eiland Drug Store, Wyche Barber Shop, City Cafe, Chocolate Shop, Smith Tailor Shop, W. H. Atkinson Grocery Co., Layne & Co. and Baker-Campbell Co.'s buildings.

Tex., Quinlan—Fort Worth Gin Co.'s plant; loss \$15,000.

Tex., Seminary Hill—O. Reed, R. H. Reid and R. E. Robe's residences; loss \$15,000.

Tex., San Antonio—Uvalde Rock Asphalt Co.'s equipment; loss \$12,000.

Tex., San Leon—San Leon Hotel owned by Joe H. Eagle, Houston.

Tex., Stamford—Stamford Brick Works; loss \$3,000.

Tex., Vera—Planters' Gin Co.'s ginnery; owned by G. A. Bennett, Fort Worth. Tex.

Tex., Temple—Geo. F. Peck's residence on N. 13th St.; loss \$13,000.

W. Va., St. Albans—St. Albans Garage, loss about \$60,000; owned by J. H. Smith.

W. Va., Weston—Interstate Window Glass Co.'s plant; loss \$25,000.

Damaged by Explosion.

Ala., Mobile—Gulf Shingle & Ice Co.'s plant; loss \$75,000.

Va., Doanoke—Griggs Packing Co.'s pump house.

BUILDING NEWS

BUILDINGS PROPOSED

Apartment Houses.

Ark., Little Rock—J. A. Jones will erect \$10,000 apartment house at 501 N. Pine St.; 2 stories; also erect \$4000 residence at 1616 W. 21st St.; 5 rooms.

Ark., Pine Bluff—E. A. Sheppard will erect \$15,000 apartment house; 72x45 ft.; brick veneer or hollow tile and stucco; Barrett built-up and ornamental shingle roof; oak and concrete floors; city lights; wire glass; E. F. Reed, Archt., construction by owner. (Lately noted.)

Fla., Tallahassee—Mrs. Ola M. Richardson will erect apartment house to replace structure lately noted burned; cost \$10,000; 46x50 ft.; frame; fireproof roof; rift pine floors.

Ga., Atlanta—Webb Const. Co., Forsythe Bldg., will erect \$25,000 apartment house on Highland Ave., nr. Colquitt Ave.; 2 stories; 100x36 ft.; brick veneer; tile and asphalt roof; tile and hardwood floors; steam heat; Leila Ross Wilburn, Archt.

Ky., Louisville—Lincoln Apartments Co. will erect \$75,000 apartment house at 1245 S. 4th St.

Mo., Kansas City—H. C. Anderson will erect \$18,000 apartment house at 4605-7 Tracy Ave.; 3 stories.

Mo., St. Louis—Pine Investment Co., Simon Van Raalte, Prest., will erect \$200,000 apartment house at W. Pine Blvd. and Euclid Ave.; 6 stories; 2 units.

N. C., Wadesboro—E. C. Ingram, Monroe and H. W. Ingram, Wadesboro, will rebuild Ingram apartment and business building; 2 stories and basement; 70x120 ft.; brick; tin roof; rift pine floors; electric lights; wire glass; steel sash and trim; plans and construction by owners. (Lately noted.)

S. C., Greenwood—A. J. Snead will rebuild apartment house lately noted damaged by fire at loss of \$12,000; stucco; tin roof; pine floors.

Tex., Beaumont—Leon R. Levy will erect \$25,000 apartment house on Liberty Ave., nr. Orleans St.; 2 stories; brick and stucco; C. A. Logan, Archt.

Tex., Dallas—S. H. Childs will erect \$12,000 apartment house at 521-23 W. Jefferson St.; brick veneer; 16 rooms.

Tex., Houston—Jesse Charlton will erect \$20,000 apartment house at Bagby and Gray Sts.; 2 stories; concrete slab.

Tex., San Antonio—Wm. Fenstermaker will erect \$14,000 brick apartment house on S. Alamo St.

W. Va., Clarksburg—John H. and James Stone, 111-13 S. 4th St., will erect \$15,100 apartment house at 314 Duff St.

Association and Fraternal.

Ala., Chickasaw—Pentalpha Lodge No. 804. A. F. & A. M., will erect temple; 2 stories; 34x75 ft.; brick; tar and gravel roof; plaster board; will probably open bids Dec. 1. Address M. Appleby, care of Rent Dept. (Lately noted.)

Bank and Office.

Ark., Pine Bluff—Arkansas Light & Power Co., H. C. Couch, Prest. and Pine Bluff Co., J. L. Longino, Secy. and Mgr., will erect \$35,000 office building jointly at 5th Ave. and Main St.; 3 stories.

D. C., Washington—Chas. H. Tompkins will erect \$85,000 store and office building at 1 Thomas Circle; 2 stories; concrete and brick.

Md., Baltimore—Calvert Bank, Howard and Saratoga Sts., will erect \$10,000 addition to branch at 702 N. Gay St.; 1 story; brick.

Mo., Kansas City—Architectural Improvement Co. will erect \$10,000 building at 652 W. 62nd St.

Mo., St. Louis—Saum Architects, 625 Chestnut St., will erect \$60,000 store and office building; 100x120 ft.; composition roof; cement, pine, tile and asbestolett floors; gas heat; metal ceilings; interior tile; plans and construction by owners. (Lately noted.)

Tex., Galveston—Pabst Realty Co., Fred C. Pabst, Prest., will erect \$12,000 office building at 23rd St. and Ave. B; concrete.

Churches.

Ala., Hartford—Methodist Church, Dr. G. W. Williamson, Chrmn. Bldg. Comm., will receive bids until Nov. 30 to erect brick building; plans and specifications from Bldg. Comm.

Ark., Imboden—Methodist Episcopal Church, South, Rev. Jas. F. Glover, Pastor, will erect \$15,000 building; 48x74 ft.; 1 story and basement; brick; composition roof; pine, hardwood and concrete floors; furnace heat; electric lights; metal ceilings; plaster board; metal doors; steel sash and trim; plans by Mr. Glover who will superintend construction. (Lately noted.)

Ark., Newport—Presbyterian Church will erect \$40,000 building. (See Contracts Awarded, Dwellings.)

Fla., Lakeland—St. Joseph's Catholic Church, Rev. M. J. Farley, Pastor, will erect building.

Ga., Cohutta—Hopewell Baptist Church will rebuild structure lately noted burned; 50x54 ft.; frame; metal roof; wood floors; address E. W. Bagby.

Md., Baltimore—Broadway-Bethany M. P. Church, Rev. Dr. Sheridan, Pastor, and Chrmn. Bldg. Comm., will erect building at Lafayette Ave. and Washington St.; Gothic architecture; 65x90 ft.; stone; slate roof; steam heat; basement for Sunday school and gymnasium; Owens & Sisco, Archts., Continental Bldg.; bids opened Nov. 15; following contractors estimating: Chas. L. Stockhausen & Co., Gay and Water Sts.; Thos. L. Jones & Son, 410 W. Saratoga St.; Hicks, Tase & Norris, 106 W. Madison St.; West Construction Co., American Bldg.; Consolidated Engineering Co., Calvert Bldg.; Cogswell-Koether Co., 406 Park Ave.; B. F. Bennett Bldg. Co., 123 S. Howard St.; M. A. Long Co., Munsey Bldg.; Leonard E. Groves. (Previously noted.)

Md., Hyattsville—Methodist Episcopal Church, South, will erect Sunday school building at Maryland Ave. and Marion St.; plans to later erect church. Address The Pastor.

Miss., Biloxi—First Baptist Church will

erect building on W. Howard Ave. Address The Pastor.

Mo., Bolivar—Christian Church, Rev. Paul Smith, Pastor, will erect \$40,000 building; 2 stories; 90x100 ft.; Carthage stone; A. C. Michaels, Archt., Miners' Bank Bldg., Joplin.

Mo., Bolivar—Missionary Baptist Church, Rev. B. F. Bray, Pastor, will erect \$40,000 building; 2 stories; 96x108 ft.; face brick and tile; pine floors; R. V. Hunt, Archt., Dallas, Texas.

Mo., Frankenstein—Our Lady of Help R. C. Church, Rev. A. Nicols, Pastor, will erect \$95,000 church and rectory; 1 story; 120x52 ft.; fireproof; limestone; Ludwig & Dreisner, Archts., 1736 Waverly Blvd., St. Louis.

Mo., Kansas City—Belmont Ave. Christian Church, Rev. F. L. Bowen, Pastor, 3240 Paseo, will erect \$50,000 addition to building; brick; stone trim; Tarbett & Gornall, Archts., 507 Republic Bldg.

Mo., Kansas City—St. Vincent's R. C. Church, Rev. F. McCabe, Pastor will erect building at 31st St. and Flora Ave.; 1 story and basement; brick and stone; 40x200 ft.; Maurice Carroll, Archt., 3117 Flora Ave.

N. C., Charlotte—First Christian Church, Disciples, Rev. G. A. Mashburn, Pastor, will erect building at 1202 East Blvd.; Francis Taylor, E. P. Tingley and others, Trustees.

N. C., East Spencer—Methodist Church, Rev. R. C. Kirk, Pastor, will erect building; 47x94 ft.; brick; slate roof; hardwood and concrete floors; steam heat; rolling partitions or folding doors; C. C. Hook, Archt., Charlotte; will not let contract. Address Mr. Kirk. (Lately noted.)

S. C., Columbia—Main Street Methodist Church, R. J. Byrum, Chrmn. Bldg. Comm., will expend \$60,000 to enlarge and improve building; ordinary construction; slate and tin roof; bids received on Dec. 15 at office of Lafaye & Lafaye, Archts.; plans and specifications ready on Dec. 1. (Lately noted.)

S. C., Spartanburg—Canaan Baptist Church, Rev. G. H. Liner, Pastor, Dan Horn, Clerk-Treas.; will erect building at Foster's Cross Roads.

Tenn., Carthage—Carthage Baptist Church will rebuild church and Sunday school building lately noted burned; cost \$20,000; seat 400; brick; fireproof; hardwood floors; steam heat; electric lights; rolling partitions; wire glass; bids opened April, 1922; address T. Riley Davis.

Tenn., Chattanooga—Pilgrim Congregational Church will erect \$35,000 building. Address The Pastor.

Tenn., Columbia—First Christian Church will erect Church and Sunday school building. Address The Pastor.

Tex., Clarksville—Episcopal Church will erect building. Address The Rector.

Tex., Lubbock—First Christian Church will erect \$50,000 brick building at W. Broadway. Address The Pastor.

Tex., Pettus—Baptist Church, Rev. Leroy Roberts, Pastor, will erect building.

Va., Ferrum—Methodist Episcopal Church, South, Rev. B. C. Beckham, Pastor, will erect \$25,000 church and Sunday school building; 1 and 2 stories; brick; G. R. Ragan, Archt., Terry Bldg., Roanoke.

Va., Roanoke—Raleigh Court M. E. Church, South, J. T. Brady, Chrmn. Bldg. Comm., will erect brick church and Sunday school building; 1 and 2 stories; G. R. Ragan, Archt., Terry Bldg.

W. Va., Beckley—First Presbyterian Church will erect \$125,000 building; auditorium to seat 900; Richard M. Bates, Jr., Archt., Huntington.

City and County.

Fla., West Palm Beach—Jail—Board of County Commrs., Hector Harris, Chrmn., rejected bids to erect jail; will open new bids Dec. 7. (Lately noted.)

La., Vidalia—Town Hall—Mrs. M. D. Boatner, Chrmn. Bldg. Comm. will erect hall; bids until Nov. 16; plans and specifications at office of Clk. of Town Council.

Okl., Oklahoma City—Ward Building—Board of County Commrs., E. S. Butterfield, Chrmn., will erect ward building at Oklahoma County poor farm; bids received by Tom Bodine, County Clk., until Nov. 16.

Tenn., Loudon—Jail—Loudon County will erect \$25,000 jail. Address County Commrs. Tex., El Paso—Library—City will vote Dec. 27 on \$10,000 bonds for library. (See Schools.)

Va., Norfolk—Market—City will erect market; cost about \$300,000; B. F. Mitchell, Archt.; will also erect auditorium. (Previously noted.)

Courthouses.

N. C., Charlotte—Mecklenburg County plans to erect 2 wings to courthouse; cost \$60,000; Chas. C. Hook, Archt.

Dwellings.

Ark., Jonesboro—Fred Puryear will erect \$15,000 residence; 2 stories and basement; brick veneer; tile roof; 51x32 ft.; hardwood and tile floors; hot water heat; address Mann & Gatling, Archts., Scimitar Bldg., Memphis, Tenn.; plans will be ready for bids Nov. 10. (Lately noted.)

Ark., Little Rock—Matt Harrison will erect \$10,000 residence at 2505 Battery St.; 2 stories; 8 rooms.

Ark., Pine Bluff—First Presbyterian Church, Rev. Dr. Norris, Pastor will erect manse at 203 W. 6th Ave.; cost \$12,000 to \$15,000; 2 stories; brick veneer.

D. C., Washington—L. E. Breuninger & Sons will erect \$20,000 residence at 1604 Varnum St., N. W.; 2 stories; brick.

D. C., Washington—M. and R. B. Warren are completing 14 dwellings and will erect 30 more; California bungalow type.

D. C., Washington—Isadore Freund will erect 12 dwellings on 27th St., N. W., Woodridge; cost \$42,000.

D. C., Washington—Jas. T. Kenyon will erect 2 two-story brick dwellings at 1422-24 A St., S. E.; cost \$10,000.

D. C., Washington—Allan E. Walker Investment Co., will erect 45 dwellings in connection with development of tract bounded by 39th, Keokuk, 41st, Jenifer and Jocelyn Sts.; cost \$15,000 to \$25,000 each.

Fla., Pensacola—C. P. McMillan will erect residence in Bayview Park section.

Ga., Atlanta—P. S. Stevens will erect 2 dwellings on Barnett St.; one frame and one brick.

Ga., Atlanta—Dr. J. C. Johnson will erect \$15,000 residence and garage on Collier Rd.; A. Ten Eyck Brown, Archt.

Ga., Atlanta—King Bailey will erect \$11,500 residence at 169 Penn Ave.; 2 stories; brick veneer and stucco.

Ga., Atlanta—Geo. L. Harris will erect \$10,000 residence on Peachtree Rd.; 1½ stories; 7 rooms; brick veneer; stone foundation; Spanish tile roof; hardwood and tile floors; steam heat; electric lights.

Ga., Atlanta—R. H. King will erect \$17,000 residence at 116 The Prado.

Ga., Atlanta—Mrs. Aleck Reeves will erect \$14,000 duplex residence at 714-16 Ponce de Leon Ave.; brick veneer.

Ga., Gainesville—Calhoun McEver will erect \$12,000 residence; 2 stories; brick veneer; tile porch and bath floors; Lella Ross Wilburn, Archt., Atlanta.

Ga., Griffin—Frank Lindsey will erect \$13,000 residence; hollow tile and brick veneer; 2 stories; shingle roof; tile porch floors; steam heat; Lella Ross Wilburn, Archt., Atlanta.

Ky., Louisville—Caroline Wagner will erect \$10,000 residence at 1708 Windsor Pl.

La., New Orleans—W. L. Stevens, Jr. will erect \$11,400 duplex residence at Fontainebleau Dr. and Broadway; construction by owner.

Md., Baltimore—H. H. Borchers, 3010 Harlem Ave., will erect 1-story stone dwelling at Harlem Ave. and Summerfield St.; cost \$10,000.

Md., Baltimore—Lennox B. Clemens, York Rd. and 31st St., will erect 3 two-story brick dwellings on Kenneth Sq., nr. York Rd.; cost \$10,000.

Md., Baltimore—Geo. W. Schoenhals, 101 S. Linwood Ave., will erect 26 two-story dwellings at 801-51 N. Bentalou St.; brick; cost \$34,000.

Md., Baltimore—Lohmuller Bldg. Co., 3001 Greenmount Ave., will erect 5 two-story brick dwellings at Greenmount Ave. and 39th St.; 14x42 ft.; cost \$13,000; Carey roofs; hot water heat; hollow fireproof tile; G. Bernard Lohmuller, Archt., 3001 Greenmount Ave.; construction by owner.

Md., Baltimore—Northern Engineering Co., Piedmont Ave., will erect 13 two-story brick dwellings at 3317-41 Cedar Ave.; cost \$20,000; one, 33x42x17.2 ft.; eleven, 13.8x27x42 ft.; one, 16.4x33x42 ft.; Fredk. E. Beall, Archt., 1335 N. Gilmor St.

Md., Baltimore—City and Suburban Realty Co., Harford Rd., will erect 3 dwellings on Bertram Ave., nr. Royston Ave., at Glen Oakes and Royster Aves., and on Evergreen Ave., nr. Magnolia Ave.; cost \$10,000; 1½ stories.

Mo., Kansas City—C. L. King will erect 6 dwellings at 5400-10 the Paseo; cost \$18,000.

Mo., Kansas City—Geo. Law will erect 3 dwellings at 2202, 2206, 2210 E. 71st St.; cost \$11,500.

Mo., Kansas City—J. O. Wade will erect 3 dwellings at 2937 Bales Ave. and 4227-29 Mercier St.; cost \$13,000.

Mo., St. Louis—Consolidated Real Estate Co. will erect 10 California bungalows in Parkside; 4 and 5 rooms.

Mo., St. Louis—W. Arthur Stickney and Stuart G. Stickney organized company and will erect 6 dwellings in connection with development of 1000 ft. on Wydown Blvd.

N. C., Burlington—R. W. Malone will erect \$15,000 residence; granite veneer; hardwood interior; steam heat.

Okl., Oklahoma City—H. H. Keller will erect 3 frame dwellings and garages at 1205, 1209 E. Park Pl. and 908 W. 34th St.; cost \$10,850.

S. C., Columbia—Palmetto Realty Co. will erect \$10,000 residence at Santee and Waccamaw Sts.; 8 rooms; first floor, brick.

S. C., Columbia—Board of Regents, South Carolina State Hospital, C. Fred Williams, Supt., H. T. Patterson, Secy.-Treas., will erect 2 frame bungalows; Lafayette & Lafayette, Archts., Loan & Exchange Bank Bldg.; bids opened.

S. C., Columbia—Eureka Development Co., Julius H. Walker, Gen. Mgr., will erect 13 brick bungalows in connection with development

S. C., Greenville—T. O. Lawton will erect \$11,000 residence at Pendleton and Leach Sts.

Tenn., Chattanooga—American Wrecking & Salvage Co., Fort Oglethorpe, Ga., will erect large number of dwellings lately noted; cost \$1,250,000; 5 and 6 rooms; frame; roofing paper roofs; pine floors; A. M. Friedman, Archt., Fort Oglethorpe; construction by owner. (See Machinery Wanted—Plumbing; Brick; Roofing; Paint.)

Tenn., Jackson—Bruce Edenton will erect \$10,000 residence.

Tenn., Memphis—W. J. McCormack will erect \$25,000 residence; 2 stories; 35x70 ft.; stucco on frame; tile roof; hardwood, concrete and tile floors; hot water heat; electric lights; mbal ceilings; ornamental terra cotta; address Mann & Gatling, Archts., Scimitar Bldg.; plans will be ready by Nov. 15. (See Machinery Wanted—Elevator.)

Tex., Beaumont—R. S. Barber will erect \$15,000 residence at North and 6th Sts.; 10 rooms; C. A. Logan, Archt.

Tex., Houston—J. H. Dorl, will erect \$12,000 residence and garage at San Jacinto and Oakdale Sts.; 11 rooms; brick veneer.

Tex., Orange—Gulf Production Co. will erect number of dwellings on Cow bayou.

Va., Richmond—Edgar Mansalle will erect 2 frame dwellings at 2217-19 Second Ave.; cost \$10,000.

Va., Richmond—Elizabeth V. Lee will erect 2 two-story dwellings at 3222-24 W. Franklin St.; brick; cost \$19,000.

W. Va., Bluefield—Vincent Paolillo will erect \$10,000 residence; tile and stucco; tile roof; hardwood and concrete floors; plaster board; hollow fireproof tile; interior tile; Alex B. Mahood, Archt.

Government and State.

Okl., Ardmore—Confederate Home—Board of Public Affairs, Geo. F. Clark, Chrmn., Oklahoma City, will expend \$30,000 to improve home for confederate veterans including additions to heating and sewer facilities.

Hospitals, Sanitariums, Etc.

Ark., Fort Smith—Fort Smith District, Sebastian County, will receive bids at office of Haralson & Nelson, Archts., until Nov. 21 to erect tuberculosis hospital at County Farm on Grand Ave; separate bids for electric wiring, plumbing and steam heating.

La., Baton Rouge—Franciscan Sisters Hospital, Eugene Cazedessus, Chrmn. Comm. will erect first unit of hospital; cost \$30,000; ultimate plans provide for expenditure of \$100,000; W. T. Nolan, Archt., New Orleans.

Mo., Koch—Board of Public Service, City Hall, E. R. Kinsey, Prest., St. Louis, will erect \$340,000 addition to hospital; 3 stories and basement; 65x146 ft.; fireproof; brick; reinforced concrete trim; reinforced concrete floors and roof; L. Preuss, Archt., care of owner.

N. C., Goldsboro—Capt. Nathan O'Berry, Chrmn. Bldg. Comm. will receive bids at office of Dr. W. W. Faison, Supt. State Hospital, until Nov. 16 to erect apartment house and carpenter and smith shop building and for plumbing in 4 toilet towers of Center Building at State Hospital; plans and specifications at office of H. A. Underwood, Engr., Joint Bldg. Comm., 912 Commercial Bank Bldg., Raleigh, and at office of Dr. Faison.

N. C., Greensboro—Guilford County will

vote Dec. 20 on \$100,000 bonds to erect tuberculosis hospital; J. W. Crane, Chrmn. Finance Comm.

Okla., Cushing—City will erect hospital. Address The Mayor.

Tenn., Memphis—Jewish Hospital Assn., Milton S. Binswanger, Chrmn. Bldg. Comm., will erect 2 hospital buildings; cost \$400,000; 5 stories; 75 x 200 ft.; concrete; terrazzo and concrete floors; steam heat; 2 passenger and 1 freight elevator; interior tile; wire glass; mail chutes; plans ready about Nov. 15 and may be secured from Richard E. Schmidt, Garden & Martin, Archts., 104 S. Michigan Ave., Chicago, or from Mr. Binswanger, Memphis. (Lately noted.)

Tenn., Springfield—City Comsn., G. B. Spruile, City Mgr., is considering \$50,000 bond issue to erect hospital.

Tex., Kerrville—Building Board of American Legion Memorial Sanatorium of Texas, Austin, will receive bids until Dec. 5 to erect and equip following buildings at sanatorium lately noted: infirmary building, laundry building, boiler house, nurses' home, pump-house, oil storage tank, smokehouse, tunnels for steam pipes, elevator for infirmary, all outside plumbing, heating and electrical work, boiler house equipment, consisting of boilers, water heating apparatus and electric generator plant, and laundry machinery; plans, specifications and proposal blanks from office of Phelps & Dewees, Archts., Gunter Bldg., San Antonio. (See Machinery Wanted—Elevator; Plumbing; Heating Plant; Electrical Equipment; Boiler House Equipment; Heating Equipment (water); Generator (electric), Laundry Machinery.)

Hotels.

Ala., Selma—A. G. Parrish, representative, will erect 8-room addition and remodel Hotel Albert; cost \$12,000.

Okla., Apperson—L. M. Miller will erect hotel at First and Main Sts.; 50x140 ft.; 2 stories; brick and tile.

Tex., El Paso—P. E. Gardner will erect 3-story hotel at Franklin and N. Stanton Sts.; cost \$70,000.

Miscellaneous.

Fla., Palm Beach—Bathing Casino—Gus' Baths, Inc., Gus Jordan, Mgr., will erect addition; 74x25 ft.; concrete and tile; tile roof; reinforced concrete and wood floors; wire glass; vault lights; 60 dressing rooms and 200 lockers; O. J. Williams, Archt. (Lately noted.)

Ga., Columbus—Fair—Chattahoochee Valley Fair Assn., Josiah Flournoy, Jr., Chrmn., Chamber of Commerce Bldg., will erect hog building, agricultural building, dressing rooms on race track, sheds, fences, etc.; bids opened.

Fla., Miami—Casino—Casino St. John will improve building; construct double deck balcony 22 ft. wide in front and 16 ft. on sides, wooden platform around pools, reinforced concrete bulkhead in front of structure, install steam heating and refrigerating plants, redecorate interior, etc.; August Geiger, Archt.

La., New Orleans—Clubhouse—New Orleans Country Club, Crawford H. Ellis, Prest., will rebuild clubhouse lately noted burned at loss of \$250,000.

N. C., Greensboro—Clubhouse—Greensboro Country Club, Pierce Rucker, Prest., will rebuild clubhouse noted burned at loss of \$40,000.

N. C., Hickory—Clubhouse—Hickory Country Club Incpd., with \$25,000 capital; will erect clubhouse; also provide 9-hole golf course.

Tenn., Jackson—Grandstand—Jackson Athletic Assn., will erect \$15,000 grandstand; seating capacity 3,000.

Tex., Abilene—Clubhouse—Abilene Country Club, Jay Musser, Chrmn. Bldg. Comm., will erect \$30,000 clubhouse; construct swimming pool, 5-ft. wolfproof fence, improve golf course, etc.

Railway Stations, Sheds, Etc.

Ala., Attalla—Alabama Great Southern R. R., J. S. Lemond, Ch. Engr., M. W. & S., Lines East, Charlotte, N. C., will erect depot.

Ala., York—Alabama, Tennessee & Northern R. R., Wm. Toxey, Ch. Engr., Mobile, will erect depot; 2 stories.

N. C., Burlington—Southern Ry. Co., J. S. Lemond, Ch. Engr., M. W. & S., Lines East, Charlotte, will enlarge passenger station; brick; stone and stucco border trim; platforms; concrete driveway; extend Main St. over railway in vitrified brick; erect stand pipe tank, etc.; cost \$45,000. (Previously noted.)

S. C., Wellford—Southern Ry. Co., J. S. Lemond, Ch. Engr., M. W. & S., Lines East, Charlotte, N. C., will erect depot.

Schools.

Ala., Anniston—City voted \$50,000 bonds to erect grammar school and improve other structures. Address The Mayor.

Ala., Birmingham—City Board of Education will erect building for Pettiford negro school at East Thomas; also erect structure for Hudson negro school; receiving bids; plans and specifications at office W. A. Rayfield, Archt., Pythian Bldg.

Ala., Montgomery—State Department of Education, Jno. W. Abercrombie, Executive Officer, will receive bids until Nov. 18 to erect dormitory at State Normal School for Negroes; plans and specifications at office State Dept. of Education.

Ark., Imboden—Sloan-Hendrix Academy Board of Trustees will erect building; also remodel residence for dormitory.

Fla., Jacksonville—Duval County votes Dec. 6 on \$1,000,000 bonds for erection of 2 junior high schools, addition to Duval High School, additional wing and remodeling Central Grammar School, erection of one or two elementary schools and various additions. Address Duval County Board of Public Instruction. (Lately noted.)

Fla., Tampa—County Board of Public Instruction will erect building in District No. 17, Jackson Heights School; \$10,000 bonds voted.

Ky., Louisville—City, Geo. Weissinger, Mayor, voted \$1,000,000 bonds to include \$320,000 to purchase site and erect Girls' High School; \$149,550 for addition to duPont Manual Training High School, site included; \$125,000 to purchase site and erect Central Negro High School; \$32,000 to construct elementary negro school; \$50,000 to reconstruct Vocational School; \$40,000 for additional class rooms to dozen elementary buildings; \$10,000 to reconstruct negro open air school; \$73,450 to enlarge existing school yards; Dr. I. N. Bloom, Prest., Board of Education. (Previously noted.)

Md., Baltimore—Board of Awards, Mayor Wm. F. Broening, Prest., will erect Montebello School, Harford Rd. and 32nd St.; 3 stories; Italian and Romanesque architecture; 2 class rooms; combined gymnasium and auditorium in separate building and 2 or more covered pavilions 35 x 50 ft. each; Clyde N. Friz and Nelson Friz, Archts., Lex-

ington Bldg.; Price Construction Co., Maryland Trust Bldg., low bidder at \$371,600. (Lately noted.)

Miss., Columbia—State Bond Improvement Commission will erect 3 cottages at Industrial Training School; bids opened; Theo. C. Link, Supervising Archt. and Director of Public Works, P. O. Box 636, Jackson.

Miss., Hattiesburg—State Bond Improvement Commission will erect dairy barn and cottage at Mississippi Normal College; Theo. C. Link, Supervising Archt. and Director of Public Works, P. O. Box 636, Jackson.

Mo., Cape Girardeau—Southeast State Teachers College will erect \$125,000 training school; semi-fireproof; slate roof; hollow fireproof and interior tile; hardwood and concrete floors; rolling partitions; probably ornamental terra cotta; Study & Farrar, Archts., 1363 Arcade Bldg., St. Louis. (Lately noted.)

Mo., Clayton (P. O. St. Louis)—City voted \$76,520 bonds to include \$38,500 to erect addition to Grade School No. 2, \$16,000 to erect grade school for negroes, \$4500 to purchase additional land at Grade School No. 2, \$17,520 for school sites on DeMun Ave. Address Board of Education.

Mo., Matthews—School Board plans to erect school; considering \$50,000 bond issue.

Mo., Springfield—Southwest State Teachers College, Clyde M. Hill, Prest., will erect training school; cost \$250,000; 3 stories; 60x216 ft.; reinforced concrete and hollow fireproof tile; tile and composition roof; hardwood, concrete and marble floors; interior tile; steel sash and trim; steam heat; 8 class rooms and gymnasium on first floor; kindergarten department and 6 teachers units on second floor; 4 units of junior and senior high school classes, domestic science, domestic art and chemical departments on third floor; bids opened about Jan. 15, 1922; Hawkins & Hoener, Archts. (Lately noted.)

Mo., Versailles—Board of Education will erect \$50,000 school to replace structure lately noted burned.

N. C., Asheville—City, Gallatin Roberts, Mayor, will erect Catholic Hill school for negroes, Catholic Ave., Hald and Gibbons Sts.; Gothic style; 58x225 ft.; auditorium 90x50 ft.; 20 classrooms 32x22 ft.; domestic science and manual training departments. cost \$100,000; Ronald Greene, Archt. (Lately noted.)

N. C., Charlotte—Biddle University, Dr. H. L. McCrory, Prest., will erect students' dining hall, teachers' residence, science hall, dormitory, etc.; cost \$120,000.

N. C., Lenoir—Lenoir College will erect \$12,000 gymnasium; 100x60 ft.; shower baths in basement.

N. C., Raleigh—Board of Education is considering expenditure of \$750,000 for schools to include rebuilding high school, Thompson School, Washington School, additional rooms to Lewis School, new building for Pilot and Caraleigh Schools; Mayor T. B. Eldridge, Wade Marr and Supt. S. B. Underwood, Committee, retained following Archts.; C. B. J. Snyder, 500 Park Ave., New York; C. Gadsden Sayre, Raleigh, and Anderson, S. C.; and Frank B. Simpson, Raleigh; Messrs. Snyder and Sayre will supervise construction. (Lately noted.)

N. C., Stantonsburg—Stantonsburg School District will vote Dec. 31 on \$25,000 school building bonds; R. T. Barnes, Clerk, Bd. of County Commrs., Wilson.

N. C., Wilson—Old Fields Township School Dist. will vote Dec. 30 on \$150,000 school building bonds; R. T. Barnes, Clerk, Bd. of County Commrs.

S. C., Fairforest—Fairforest School Dist. voted \$15,000 bonds to erect school. Address Dist. School Trustees.

Tenn., Jefferson City—School Board will erect \$45,000 to \$50,000 school; 2 stories; 128.6x67 ft. and 56x51 ft.; brick and frame; Trinidad Lake asphalt roof; hardwood and concrete floors; ventilators; steel sash and trim; day labor; Waters & Tarwater, Archts., 613 Market St. Address F. W. Galbraith, Chrmn. Bldg. Comm. (Lately noted.)

Tex., Beaumont—South Park Independent School Dist. will vote Nov. 26 on \$300,000 school bonds. Address Jefferson County Board of Education.

Tex., Booker—Board of Education will erect \$35,000 school.

Tex., Dallas—Board of Education will receive bids until Nov. 18 to erect Stephen F. Austin School at Gaston, Junius and North Washington Sts.; cost \$165,000; Dewitt & Lemmon, Archts.

Tex., Dallas—Southern Methodist University, Dr. H. A. Boaz, Prest., will erect Hyer Hall of Science; cost \$125,000.

Tex., El Paso—City will vote Dec. 27 on \$1,800,000 bonds to include \$500,000 for school, \$10,000 for library, etc.; Chas. Davis, Mayor.

Tex., Fentress—Fentress Independent County Line School Dist. will vote Dec. 10 on \$20,000 bonds to erect school; brick or tile. Address District School Trustees.

Tex., Fort Worth—Polytechnic Independent School Dist. will erect high school covering 16,000 sq. ft.; 3 stories; reinforced concrete; steel lumber floor slabs; plans ready for contractors about Nov. 15; separate bids for steam heating, plumbing and electric wiring; Clarkson & Gaines, Archts., First Natl. Bank Bldg. (Lately noted.)

Tex., Gohsion—County Board of Education, Clarendon, will erect school; cost \$15,000.

Tex., Jericho—County Board of Education, Clarendon, will erect \$15,000 school.

Tex., Teague—Board of Education, Newell N. Nottley, Supt. of Schools, will erect high school; election Nov. 22 on \$50,000 bonds. (Lately noted.)

Tex., Wawaka—School Board will erect \$15,000 building.

Stores.

Ark., Little Rock—Sim Johnson will erect additional story to building at 802 W. 9th St.; cost \$19,000.

Ark., Pine Bluff—Fred Senyard will erect \$10,000 store at 6th Ave. and Main St.; 1 story; 50x142 ft.

Fla., Haines City—Hillsboro Grocery Co., Tampa, will erect building.

Fla., Kissimmee—Jno. Beaman will remodel and erect 2nd story addition to old Star Theater building for business structure; also plans to erect 2-story building adjoining.

Fla., Miami—J. F. Chaille and Hugh Anderson will erect 1-story building at W. Flagler St. and Third Ave.; cost \$40,000.

Fla., Plant City—Dr. W. B. Herring will erect \$35,000 building for stores and apartments; 2 stories; 99x105 ft.; brick; built up gravel roof; tile, concrete and wood floors; metal ceilings; plaster board; wire glass; ventilators; day labor. Address L. C. Fallin, Archt., P. O. Box 331. (See Machinery Wanted—I Beams (Steel), Window Guards; Skylights; Roofing (Tile); Grates; Fixtures (Fireplace).)

Fla., Key West—Hiram Wolkawsky will erect building at Duval and Southard Sts.; 41x100 ft.; concrete.

Ga., Atlanta—Adair & Senter will erect 1-story brick store at 265-67 Peachtree St. cost \$16,000.

Ga., Atlanta—F. J. Monroe will expend \$25,000 to repair brick building at 1000 Marietta St.

N. C., Burlington—C. F. Neese will erect building for 4 stores; brick; stone trim; cost \$20,000.

N. C., Burlington—C. D. and Walter Story will erect \$10,000 business building; brick; stone trim; steam heat; elevator.

Tenn., Gallatin—B. Suddarth & Co. plan to erect store; day labor.

Tex., San Antonio—Vogue Store, C. J. Dollinger, Gen. Mgr., Houston and Navarro Sts., will expend \$50,000 to remodel building; install 2 elevators; provide public rest room equipped with telephones.

Theaters.

Md., Baltimore—Ambassador Theater Co. will erect \$35,000 theater; 85 x 126 ft.; fireproof; slag roof; hardwood and concrete floors; interior tile; metal doors; wire glass; safes; ventilators; steam heat; electric lights; E. G. Blanke, Archt., 532 N. Calvert St. (Previously noted.)

W. Va., Charleston—Quincy Jones, Prest. First National Bank, South Charleston, and others will erect theater on 7th Ave.; 50x120 ft.; fireproof; brick; cost \$30,000.

W. Va., Huntington—Washington Theater Directors will erect building at 14th St.,

West, and Washington Ave.; L. J. Dean, Archt.

W. Va., Warwood—W. H. Morgan, 98 18th St., will erect \$24,000 moving picture theater lately noted; 42½x110 ft.; brick and tile; ornamental terra cotta; interior tile; Johns Manville roof; concrete and wood floors; probably hot air heat; safe; J. L. Metcalf, Archt., Toronto, Ohio; under construction. (See Machinery Wanted—Lighting Fixtures.)

Warehouses.

Ala., Birmingham—Warrant Export & Discount Corp., organized with \$1,000,000 capital to facilitate handling and marketing cotton; Samuel C. Dobbs, Atlanta, Ga., Prest.; Chas. F. Wood, V.-P.; Clemon B. Rogers, Treas.; W. D. Nesbitt, Secy., all Birmingham; temporary offices at 1609 American Trust Bldg.

Mo., St. Joseph—A. H. Enrich & Sons Mfg. Co., South St., will erect building for office, storage and salesroom; brick; Siemens & Arnhold, Archts., 303 Bartlett Bldg.

Mo., St. Louis—Jos. Forshaw Stove & Heating Co., 11 N. 12th St., is reported to erect \$75,000 warehouse; 7 stories and basement; 25x100 ft.; brick; Preston J. Bradshaw, Archt., International Life Bldg.

Tenn., Tiptonville—A. E. Markham will erect cotton house to replace burned structure.

W. Va., Charleston—Elk-Milling & Produce Co., will erect \$15,000 storage building; 50x100 ft.; 1 story; concrete and brick.

BUILDING CONTRACTS AWARDED

Apartment Houses.

Ala., Birmingham—A. S. Miree will erect \$100,000 apartment house at 10th Ave. and 18th St., South; Englenook Const. Co., Contr.

Ala., Birmingham—T. E. Leeper will erect \$100,000 apartment house at Caldwell Ave. and 28th St., south; Englenook Const. Co., Contr.

Va., Portsmouth—H. Bangel will erect \$11,200 apartment house at Washington and North Sts.; 70 x 50 ft.; brick; 3 suites; Portsmouth Construction Co., Contr.

Association and Fraternal.

Mo., Slater—Diamond Lodge No. 65, K. of P., will erect \$27,000 home; 42x72 ft.; brick, stone and concrete; tile roof; hardwood and concrete floors; steam heat; electric lights; hollow fireproof tile; metal ceilings; ornamental terra cotta; interior tile; vaults; rolling partitions; wire glass; ventilators; L. Abt., Archt., Mobile; W. W. Jacoby, Contr. Address B. D. Montgomery. (Lately noted.)

Mo., Springfield—Abou Ben Adhem Shrine will erect \$257,500 mosque; 3 stories; 140x225 ft.; steel and reinforced concrete; zinc roof; concrete and hardwood floors; direct heating plant; hollow fireproof tile; metal ceilings; ornamental terra cotta; interior tile; metal doors; vaults; wire glass; vault lights; ventilators; steel sash and trim; Heckenlively & Mark, Archts.; address John M. Olsen, Contr., 626 Delmar St. (Lately noted.)

W. Va., Huntington—Guyandotte Bank, D. I. Smith, Chrmn. Bldg. Comm., will erect \$30,000 building; 2 stories; 30x50 ft.; reinforced concrete; built-up roof; terrazzo and concrete floors; vapor heat; hollow fireproof tile; wire glass; ventilators; Wm. Francis Dielh, Archt., Robson-Prichard Bldg.; Henry Persun, Contr., 626 7th Ave. (Previously noted.)

Bank and Office.

W. Va., Charleston—C. J. Pearson Co., 408 Union Bldg., will erect \$75,000 building; 5 stories and basement; 42x120 ft.; reinforced concrete, brick and hollow tile; oak trim; pre-cast concrete slab with 4-ply Barrett specification roof; concrete floors; steam heat, \$5000; electric lights; 1 passenger and 1 freight elevator, cost \$3500; C. J. Pearson Co. and American Engineering & Const. Co., Archts.; American Engineering & Const. Co., Contr., 910 Quarrier St., may be addressed. (Previously noted.)

Churches.

Ga., Augusta—Second Baptist Church will erect \$14,935 Sunday school addition at D'Antignac and 11th Sts.; brick; Holley Const. Co., Contr.

Md., Baltimore—Har Zion Congregation will erect \$65,000 synagogue at 2016 W. North Ave.; brick and frame; stone face; slate roof; wood and concrete floors; rolling partitions; ventilators; steel sash and trim; Louis Levi, Archt.; M. A. Long Co., Contr., both Munsey Bldg. (Previously noted.)

Mo., Bolivar—Methodist Episcopal Church, Rev. H. H. St. Louis, Pastor, will erect \$30,000 building; 2 stories; 68x88 ft.; Elston, Axon & Rus. A. Archts., Springfield; Bramer & Son, Contra., Monett. (Previously noted.)

N. C., Asheville—West Asheville Presbyterian Church will erect \$17,000 building; 50x60 ft.; brick and concrete; tin roof; pine floors; hot air heat, \$400; city electric lights; Gadsden Sayre, Archt., Anderson, S. C.; W. V. Henry, Contr., Asheville. (Lately noted.)

Okla., Lawton—First M. E. Church, Rev. W. Kendall, Pastor, will erect \$100,000 building; 2 stories and basement; plans by owner; Holmboe Const. Co., Constr., Oklahoma City.

Tex., Ennis—Tabernacle Baptist Church,

Rev. W. E. Brittain, Pastor, will erect \$23,900 Sunday school building; 2 stories and basement; John H. Dalton, Supt. of construction. (Lately noted.)

City and County.

Md., Middletown—Memorial — Memorial Bldg. Comm., Dr. R. V. Hauver, Chrmn., will erect \$50,000 memorial building and town hall; 2 stories; 56 x 135 ft.; Edw. Leber, Archt., Hay Bldg., York, Pa.; Roy W. Poole, Contr., Rosemont Ave., Frederick Md. (Previously noted.)

Okla., Enid—Convention Hall—City will erect \$400,000 convention hall; 122x232 ft.; brick and concrete; steel and concrete roof; concrete floors; Layton, Smith & Forsyth, Archts., Oklahoma City; address Bass & Frankenfeld, Contrs., Enid. (Lately noted to vote bonds.)

Dwellings.

Ark., Newport—Presbyterian Church will erect 6-room manse; Wm. Bengel, Sr., Contr.; plans to erect \$40,000 church later. Address The Pastor.

Ark., Ozark—M. M. Swift will erect residence on Greenwood St.; contract let.

Ark., Ozark—L. W. Brewer will erect residence on Greenwood St.; contract let.

Fla., Fort Myers—L. A. Whitney will erect \$2500 residence; 1 story; 24 x 32 ft.; frame; composition roof; wood floors; plans to erect 20 residences within next 2 years; cost \$2500 to \$4000 each; D. A. Lucas, Contr. (Lately noted.)

Ga., Atlanta—A. H. Hancker will erect \$35,000 residence at Peachtree circle and 17th St.; 2 stories and basement; hollow tile and stucco; slate roof; A. Ten Eyck Brown, Archt.; Barge-Thompson Co., Contr.

Ga., Atlanta—W. H. Smith will erect 3 bungalows; cost \$18,000. Lella Ross Wilburn, Archt.; A. H. Williams, Contr.

La., New Orleans—People's Homestead Assn. will erect 2 stucco bungalows at Octavia and Clara Sts.; cost \$14,087; Dixie Realty Co., Inc., Contrs.

Tenn., Jackson—P. H. Russell will erect 12-room residence; hollow tile and stucco; Johns-Manville asbestos roofing; hardwood floors; hot air heat; Wm. Crutchfield, 2nd, Archt., Chattanooga; Tatum Bros., Contrs., Jackson. (Lately noted.)

Tenn., Memphis—Warren Newsum will erect residence and garage at 2222 Court St.; cost \$14,000; brick veneer; 12 rooms; hot water heat; \$1000; Sinton Bldg. Co., Contr.

Tex., Austin—Ben M. Barker will erect \$30,000 residence; 50 x 30 x 45 ft.; brick veneer on hollow tile; colonial design; asbestos shingle roof; oak floors; hot air heat, \$1000; electric lights; hollow fireproof tile; plaster board; interior tile; H. F. Kuehne, Archt.; Scott Yeamans, Contr. (Lately noted.)

Tex., Galveston—Silas D. Reid will erect \$20,000 residence; 2 stories; 30x55 ft.; frame and face brick veneer; green tile roof; oak floors; hot air heat; Raymond R. Rapp, Archt., 602 American Natl. Ins. Bldg.; Coyle Bros., Contrs.; all materials purchased. (Lately noted.)

Tex., San Antonio—San Antonio Development Co. will erect 2 dwellings; cost \$9000 each; 43x38 ft.; frame and stucco; wood shingle roofs; oak floors; plaster board; Ralph Cameron, Archt.; Central Trust Bldg.; C. M. Webb, Contr., 2801 Saunders Ave. (Lately noted.)

Government and State.

Tex., Austin—Asylum—State Board of Con-

trol will erect additions to buildings at State Insane Asylum; C. H. Page & Bro., Archts.; J. F. Johnson, contr. for 4 bath rooms at \$64,750; Donnelly & White, mechanical work and plumbing at \$12,131; John L. Martin, wiring at \$475 and heating at \$1997. (Lately noted.)

Hotels.

Tex., Corsicana—Ralph Beaton will erect \$40,000 annex to Beaton Hotel; 100x40 ft.; semi-fireproof; brick and hollow fireproof tile; tar and gravel roof; concrete and wood floors; metal ceilings; plaster board; ornamental terra cotta; interior tile; steel sash and trim; rolling partitions; wire glass; ventilators; steam heat; H. O. Blanding, Archt., Hardy-Peck Bldg.; G. W. Brillhart, Contr. (Lately noted.)

Miscellaneous.

Tex., Fort Worth—Community Center—Trinity Episcopal Church will construct community center; Harry B. Friedman, Contr. for basement.

Railway Stations, Sheds, Etc.

Fla., Cottondale—Atlanta & St. Andrews Bay R. R., J. D. Patterson, Gen. Mgr., Panama City, Fla., and Louisville & Nashville R. R., W. H. Courtenay, Ch. Engr., Louisville, Ky., will erect passenger station and train shed; frame; asbestos shingle roof; train shed to be covered with Barrett's specification roof; cost \$15,000; H. H. Brown, Contr., Dothan, Ala.

Schools.

D. C., Washington—District Commissioners, Room 500 District Bldg., will erect 4-room addition to and alter James Monroe School, Columbia Rd. and Georgia Ave.; cost \$55,000; 32x50 ft.; brick and hollow fireproof tile; slate roof; hardwood and concrete floors; steam heat, \$20,000; electric lights, \$1000; A. L. Harris, Archt., Wilkins Bldg., Washington; Michael Seretto, Contr., 3 Tremont Row, Boston, Mass. (Lately noted.)

Ga., Claxton—Claxton School Dist. Board of Trustees, P. M. Anderson, Chrmn., will erect school; 8 class rooms and auditorium; brick and hollow tile; tin roof; wood floors; 1-pipe steam heating system; Willis Irvin, Archt., Lamar Bldg., Augusta; Brannen Bros., Contrs., Statesboro. (Lately noted.)

La., Braithwaite—Parish School Board, Pointe a la Hache, will erect school; cost \$14,000; E. W. Ullrich Glass Co., Inc., Contr., New Orleans.

La., Kinder—School Board will erect high school; cost \$62,000; contract let.

La., New Iberia—Iberia, Parish School Board, L. G. Porter, Secy., will erect high school; 3 stories; joist construction; composition roof; wood and concrete floors; low pressure steam heat; electric lights; Nolan & Torre, Archts., 1000 Canal-Commercial Bank Bldg., New Orleans; Caldwell Bros., Abbeville, contrs. at \$104,250. (Lately noted.)

Mo., West Plains—School Board will erect \$10,000 addition to West Plains High School; 1 story; 70x100 ft.; contract let.

N. C., Hamlet—School Board, W. R. Land, Chrmn., will erect high school; C. V. Yorke & Co., Contrs., Raleigh; Toomey Heating Co., Charlotte, heating; C. C. Hook, Archt., Charlotte, will also prepare plans for 6-room addition. (Lately noted.)

N. C., Lenoir—School Board will erect graded and high school; 220 x 175 ft.; 24 class rooms, domestic science room and kitchen, laboratory auditorium to seat 1,050,

gymnasium, music rooms, library, etc.; Gothic design; fireproof; reinforced concrete and hollow tile; faced with tapestry brick; interior walls, gypsum block and hy-rib entrances; cornices and balustrades in parapet of limestone; uni-lateral lighting system; direct indirect heating with modulating system of ventilation; Benton & Benton Archts., Wilson; Harbin Construction Co., Lexington, contr. at \$94,793; Frank B. Ingold, Hickory, plumbing at \$8,724; Unkford Bros., Wilson, heating at \$12,995; Hale Electric Co., Hickory, wiring at \$3,686. (Lately noted.)

N. C., Raleigh—North Carolina State College will erect memorial clock tower; 115 ft., with base including steps 63 ft. square; Rowe & Roach Co., Greensboro, contr. for stone work; stone for base, Mount Airy granite furnished by Sargent & Co.; W. H. Deacy of W. H. Leland Studios, Archt., 509 5th Ave., New York.

Okla., Mooreland—Board of Education will erect \$35,000 school; 2 stories and basement; 93x93 ft.; brick; stone trim; composition roof; W. G. Charles & Co., Archts., 601 Schweiter Bldg., Wichita, Kans.; H. H. Dohe, Contr., Okeene, Okla. (Previously noted.)

Okla., Poteau—Board of Education, A. B. Green, Secy., will erect \$75,000 school; 2 stories and basement; M. T. Hardin, Archt., Muskogee; T. S. Terry, Contr., Poteau. (Lately noted.)

S. C., York—York School Trustees will erect addition to graded school; brick; 15 class rooms and auditorium; Edwards & Sawward, Archts., Atlanta, Ga.; W. T. Beamguard, York, contr. at \$77,665; also plans to erect school for negro pupils. (Lately noted in part.)

Va., Richmond—Board of Education, C. P. Walford, Clerk, 803 E. Marshall St., will erect junior high school; 170 x 142 ft.; 3 stories; fireproof; brick, concrete and hollow tile; tin or gravel roof; hardwood, concrete and terrazzo floors; metal doors; steel sash and trim; wire glass; electric passenger elevator, dumb waiter and ash hoist; cost \$341,800; Chas. M. Robinson, Archt., Address A. M. Walkup Co., Inc., Contr. (Lately noted.)

W. Va., Huntington—Board of Education, Clarence L. Wright, Supt., let contract at \$22,585 to Hammond Heating Co., Cincinnati, O., to install warm air fan furnace system of heating and ventilating in South Junior High School; Meador & Handloser, Archts.; Harrison Smith, Contr. (Previously noted.)

Stores.

Fla., West Palm Beach—G. W. Bingham will erect store on Poinsettia St.; 36x76 ft.; 1 story; hollow tile; cost \$20,000; C. C. Lightbown, Contr.

Ga., Decatur—Chas. Metz will erect \$15,000 building at Ponce de Leon and Claremont Aves.; granite; tile roof; Wm. J. Chase, Archt.; S. L. Adams, Contr., both Atlanta.

La., New Orleans—Mrs. M. J. Staggers will erect \$11,000 building at Camp and St. Charles Sts.; J. J. Swiler Constr. Co., Inc., Contr.

Md., Baltimore—Joseph S. Fox will erect 2-story brick addition at 683 W. Fayette St.; 23.6x38 ft.; steam heat; cost \$15,000; B. W. Minor, Archt.-Contr., 224 W. Pratt St.

N. C., Winston-Salem—J. N. Davis will erect mercantile building at Second and Liberty Sts.; Jno. Nading, Contr.

Theaters.

Fla., Miami Beach—Carl G. Fisher, Indl-

Annapolis, Ind., and associates will erect Atlanta Theater at Lincoln Rd. and Lennox Ave.; cost \$100,000; fireproof; steel frame; hollow fireproof tile; composition and tile roof; tile and cement floors; metal doors; ventilators; August Geiger, Archt., Townley Bldg., Miami; C. B. Floyd, Contr., Miami Beach. (Previously noted.)

Warehouses.

Ala., Attalla—Noojin Hardware Co., will erect brick warehouse on 5th St.; 15,000 sq ft. floor space; Chas. E. Waldrop, Contr., Gadsden.

Ga., Atlanta—M. L. and J. B. Breman will erect warehouse at 120 Decatur St.; 3 stories; 50 x 238 ft.; mill construction; brick walls

17 in thick; cost \$60,000, including sprinkler system; Lockwood & Poundstone, Archts.; Foundation Co., Contr.; cement and hydraulic grey pressed brick furnished by Siple Sons; R. D. Campbell Coal Co., sand; Phoenix Planing Mill Co., mill work; David Lupton & Sons, steel sash.

Va., Norfolk—Eastern Cotton Oil Co. will erect \$12,000 warehouse at Money Point; J. L. Abbitt, Contr.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Air Compressor.—J. Bacon Hyatt, 715 Gaither Estate Bldg., Baltimore, Md.—Air compressor. (See Construction News—Motor Cars, Garages, Tires, Etc.)

Automobile Repair Shop Equipment.—J. Bacon Hyatt, 715 Gaither Estate Bldg., Baltimore, Md.—Equipment for general shop work including lathe, drill press, arbor press, emory wheel, power hack saw, etc. (See Construction News—Motor Cars, Garages, Tires, Etc.)

Blacksmith Shop.—Polk, Hunt & Davis, J. B. Hunt, Mgr., Wauchula, Fla.—Complete blacksmith shop. (See Construction News—Foundry and Machine Plants.)

Blowpipe.—Troy Cross Arm Co. Troy, S. C.—500 ft. of 14 or 16-in. blowpipe for conveying shavings from planer, second-hand.

Catalogs of Buildings.—Service Engineering & Construction Co., 180 Auburn Ave., Atlanta, Ga.—Catalogs of all kinds pertaining to buildings.

Boilers, etc.—Sam'l T. Williams, 223 N. Calvert St., Baltimore, Md.—2 boilers about 72-in. x 16-ft. or 72-in. x 18-ft. for not less than 100 lbs. pressure; consider Heine boilers; probably need pumps, heater, etc.; to conform to the American Society of Mechanical Engrs. code.

Boiler.—T. H. Hann, Englishtown, N. J.—80 H.P. return tubular boiler with stack; immediate delivery Franklyn, Va.

Brake (Power Press).—Orleans Steel Products Co., 1025 Bienville St., New Orleans, La.—Prices on Geo. A. Ohl ½-in. capacity power cornice press brake; state age, weight, freight rate, etc.

Breakwater, etc.—Treasury Dept., Supv. Archt's Office, Washington, D. C.—Bids until Dec. 1 to furnish and place riprap, also construct pile breakwater at U. S. Quarantine Station, Galveston, Tex.; plans on file or with Custodian at Galveston. (See Construction News—Miscellaneous Construction.)

Brick.—American Wrecking & Salvage Co., Fort Oglethorpe, Ga.—Brick. (See Buildings Proposed, Dwellings, Tenn., Chattanooga.)

Bridge Construction.—Newberry County Comms., Newberry, S. C.—Bids until Nov. 23 to build 263-ft. reinforced concrete bridge over Bush river; plans, etc., with W. A. Sanders, County Engr. (See Construction News—Bridges, Culverts, Viaducts.)

Bridge Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Nov. 29 to build reinforced concrete bridge over Severn River consisting of 24 spans, each 65-ft. clear, with total length of 1893-ft., roadway 22-ft. together with necessary piers, abutments, paving and earth fill approaches; Anne Arundel County, Contract AB-10; plans furnished after Nov. 14, 1921 by Viaducts. (See Construction News—Bridges, Viaducts, Etc.)

Bridge Construction.—State Roads Comsn., 601 Garrett Bldg., Baltimore, Md.—Bids until Nov. 22 to build 54-ft. span reinforced concrete arch bridge over Little Gunpowder Falls between Baltimore and Harford counties on Belair road including earth fill and

removal of present truss bridge; Harford County, Contract H-29; specifications, etc., on file. (See Construction News—Road and Street Construction.)

Boilers.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—See Boiler House Equipment.

Boiler House Equipment.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Dec. 5 for boiler house equipment, including boilers, water heating apparatus, electric generator plant, etc. (See Buildings Proposed, Hospitals, Sanitariums, Etc., Tex., Kerrville.)

Casing.—Laing Oil Co., 608 Kanawha Banking Trust Co., Charleston, W. Va.—500 ft. 10-in. 800 ft. 8-in. and 1,800 ft. 6½-in. casing.

Cement Etc.—Atlantic Bitulithic Co., 1205 Virginia Railway & Power Bldg., Richmond, Va.—Cement, etc. (See Construction News—Sewer Construction.)

Compressor (Air).—D. C. Elphinstone, 408 Continental Bldg., Baltimore, Md.—Dealers prices on portable, gasoline driven air compressor, direct connected preferred, capacity about 100 ft. at 80-100 lbs.; good condition.

Compressors.—Becksmith Oil Co., 121 10th St., Warwood, Wheeling, W. Va.—Compressors for small gasoline plant. (See Construction News—Gas and Oil Enterprises.)

Crossties.—S. Raymond Brooks, Secy., Board on Mgrs., Texas State Railroad, Box 1781, Houston, Tex.—20,000 cross ties, 6x8-8 ft., hewn or sawed, good condition with full square edges, pine or oak; delivered along line and at terminal of Texas State Railroad.

Drainage.—Hickman County Comms., J. A. Porter, Secy., Centerville, Ky.—Bids until Nov. 25 to construct Bayou de Chien Drainage Dist. in Graves, Hickman and Fulton Counties, 18½ mi. main canal, 6 laterals and 8 wooden bridges, total excavation 1,306,000 cu. yds.

Drainage.—Mango Drainage Dist., Board of Supvrs., W. O. Hobbs, Chrmn., Gliddens Bldg., Tampa, Fla.—Bids opened Nov. 15 to construct and excavate drains and ditches in vicinity of Mango, Fla.; plans with Chief Engr. of Dist., Room 15, Campbell Bldg., Tampa.

Drilling Rigs.—Pamunkey Oil & Development Co., J. M. Flaherty, Gen. Mgr., Orange, Va.—Complete drilling rigs "Standard" to drill 3,500 ft. or less; not rotary.

Drug Sundries.—Herbolac Drug & Mfg. Co. Wm. Carson Black, Props., Box 17, Barboursville, Ky.—Correspond with mfrs. of drug sundries, package drugs, etc., for pick up and pay drug store. (See Construction News—Miscellaneous Factories.)

Elevator.—Mann & Gatling, Scimitar Bldg., Memphis, Tenn.—Prices on small capacity electric invalid elevator. (See Buildings Proposed, Dwellings.)

Electrical Equipment.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Dec. 5 for electrical work, electric generator, etc. (See Boiler House Equipment.)

Electric Light Plant Equipment.—City, H. S. Archer, Clk., Centerville, Miss.—Complete outfit for electric light plant. (See Construction News—Electric Plants.)

Elevator.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Dec. 5 for installing elevator. (See Buildings Proposed, Hospitals, Sanitariums, Etc., Tex., Kerrville.)

Engine.—Sam'l T. Williams, 223 N. Calvert St., Baltimore, Md.—250 H.P. Corliss engine; to conform to the American Society of Mechanical Engrs. code.

Engine (Crude Oil).—Jon G. Duncan Co., Jackson and Central Sts., Knoxville, Tenn.—Dealers prices on 50 to 75 H. P. crude oil engine; second-hand.

Engine.—T. H. Hann, Englishtown, N. J.—50 H.P. engine; immediate delivery Franklyn, Va.

Engines.—Becksmith Oil Co., 121 10th St., Warwood, Wheeling, W. Va.—Engines for small gasoline plant. (See Construction News—Gas and Oil Enterprises.)

Engines.—City, H. S. Archer, Clk., Centerville, Miss.—Oil burning engines. (See Construction News—Electric Plants.)

Fixtures (Fireplace).—L. C. Fallin, P. O. Box 331, Plant City, Fla.—Fireplace fixtures. (See Buildings Proposed—Stores.)

Flooring.—New Orleans Port of Comms., J. F. Finkle, Jr., Secy., Suite 200, New Orleans Court Bldg., New Orleans, La.—Bids until Nov. 22, 100,000 ft. of untreated Southern pine flooring.

Gasoline System.—J. Bacon Hyatt, 715 Gaither Estate Bldg., Baltimore, Md.—Gasoline system. See Construction News—Motor Cars, Garages, Tires, Etc.)

Generator.—Elkins Power Co., C. C. Bosworth, Mgr.-Engr., Elkins, W. Va.—750-K. W. turbo generator with condenser equipment. (See Construction News—Electric Plants.)

Generator (Electric).—Building Board of American Legion Memorial Sanatorium of Equipment, Texas, Austin, Tex.—See Boiler House

Gravel.—Highway Dept. Board State Engrs., 332 Maison Blanche Annex, New Orleans, La.—Bids until Nov. 25 for 40,000 cu. yds. sand-clay gravel; 50-per-cent stone on ¼ in. screen, delivery on points between Arcadia and Taylor, La.

Grinding (Cylinder) Machine.—Orleans Steel Products Co., 1025 Bienville St., New Orleans, La.—Prices on cylinder grinding machine to grind automobile cylinder block; state age, weight, freight rate, etc.

Grates.—L. C. Fallin, P. O. Box 331, Plant City, Fla.—Grates. (See Buildings Proposed—Stores.)

Hack Saw Outfit.—Polk, Hunt & Davis, J. B. Hunt, Mgr., Wauchula, Fla.—Hack saw outfit (power). (See Construction News—Foundry and Machine Plants.)

Heating Equipment.—City Board of Education, G. W. Garner, Secy., Memphis, Tenn.—Bids until Nov. 14 for furnishing and installing radiation on third floor Central High School Annex at 4th and Jefferson Sts.

Heating Equipment (Water).—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—See Boiler House Equipment.

Heating Plant.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Dec. 5 for installing heating plant. (See Buildings Proposed, Hospitals, Sanitariums, Etc., Tex., Kerrville.)

Hose (Fire).—Dist. Commrs., Room 500, Dist. Bldg., Washington, D. C.—Bids until Nov. 15 to furnish and deliver fire hose; information apply to Room 320, Dist. Bldg.

Ice Plant.—Crystal Ice & Storage Co., 1704 Ave. D., Birmingham, Ala.—Prices on full equipment for 50 ton ice plant, either Frick, Vilter Mfg. Co., Triumph Ice Machine Co. or DeLa Vergne. (See Construction News—Ice and Cold Storage Plants.)

Insulators, etc.—Navy Dept., Bureau of Supplies and Accounts, Washington, D. C.—Bids until Nov. 22 to deliver porcelain insulators and lumber to navy yard.

I Beams (Steel).—L. C. Fallin, P. O. Box 331, Plant City, Fla.—Steel I beams. (See Buildings Proposed—Stores.)

Kitchen Equipment, Etc.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids until Dec. 2, for kitchen equipment, install 2 electric elevators; sterilizers; hydro therapeutics equipment, etc.; ice making and refrigerating plant in main hospital building for U. S. Public Health Service Hospital, Norfolk, Va.; plans on file.

Lathes.—Polk, Hunt & Davis, J. B. Hunt, Wauchula, Fla.—18-in. swing lathes. (See Construction News—Foundry and Machine Plants.)

Laundry Machinery.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Dec. 5 for laundry machinery. (See Buildings Proposed, Hospitals, Sanitarium, etc., Tex., Kerrville.)

Lighting Fixtures.—W. H. Morgan, 98 18th St., Warwood, W. Va.—Indirect lighting fixtures. (See Buildings Proposed—Theaters.)

Manufacturers Agents.—Silcox & Co., Cotton Factors and Commission Merchants, Exchange Bldg., Exchange St., Charleston, S. C.—To obtain accounts of manufacturers lines to represent them in the Southeastern States.

Millwork.—Treasury Dept., Jas. A. Wetmore, Acting Supvg. Archt., Washington, D. C.—Bids until Nov. 14 for millwork for 7 buildings at U. S. Public Health Service Hospital at Perryville, Md.; drawings and specifications from Acting Supvg. Archt.

Motor.—Indian Creek Land & Timber Co., Box 1004, Knoxville, Tenn.—5 H.P. single phase, 110-220 volt motor, speed rate not essential.

Motor.—Polk, Hunt & Davis, J. B. Hunt, Mgr., Wauchula, Fla.—2 to 4 H.P. electric motor. (See Construction News—Foundry and Machine Plants.)

Paint.—American Wrecking & Salvage Co., Fort Oglethorpe, Ga.—Paint. (See Buildings Proposed, Dwellings, Tenn., Chattanooga.)

Paving.—City, J. W. Motte, Director Public Works, Savannah, Ga.—Bids until Nov. 16 to pave 37th St., 3,900 sq. yds.; resurface Bay St., 31,018 sq. yds.; Whitaker St., 14,900 sq. yds.; Habersham St., 2,033 sq. yds.; plans, etc., on file. (See Construction News—Road and Street Construction.)

Pipes.—Atlantic Bitulithic Co., 1205 Virginia Railway & Power Bldg., Richmond, Va.—Vitrified sewer and concrete pipe. (See Construction News—Sewer Construction.)

Plumbing.—American Wrecking & Salvage Co., Fort Oglethorpe, Ga.—Plumbing. (See Buildings Proposed, Dwellings, Tenn., Chattanooga.)

Plumbing.—Building Board of American Legion Memorial Sanatorium of Texas, Austin, Tex.—Bids until Dec. 5 for plumbing. (See Buildings Proposed, Hospitals, Sanitariums, etc., Kerrville.)

Plumbing Fixtures.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids opened Nov. 17 to furnish plumbing fixtures for U.S.P.H.S. hospital at Perryville, Md.; plans on file.

Plumbing.—East River District Board of Education, Princeton, W. Va.—Bids until Nov. 12 for furnishing and installing plumbing in East Princeton graded school; plans and specifications at office A. F. Wysong, Archt., Princeton.

Pots (Clay Flower) Machinery.—Superior Nurseries, Orlando, Fla.—Names and addresses mfrs. of mchy. to make clay flower pots.

Press.—Polk, Hunt & Davis, J. B. Hunt, Mgr., Wauchula, Fla.—Drill press. (See Construction News—Foundry and Machine Plants.)

Printing Equipment.—Sandspur Publishing Co., Winter Park, Fla.—Prices on printing equipment. (See Construction News—Misc. Enterprises.)

Pumps.—Becksmith Oil Co., 121 10th St., Warwood, Wheeling, W. Va.—Pumps for small gasoline plant. (See Construction News—Gas and Oil Enterprises.)

Pumps.—Gulf Machinery and Ship Supply Co., 2128 Strand, Galveston, Tex.—Downie deep well pump. (See Construction News—Water-Works.)

Road Construction.—Mobile County Board of Revenue and Road Commrs., Mobile, Ala.—Bids until Dec. 1 to construct 2.6 mi. Half Mile road; 12 mi. Grand-Bay-Union Church road; plans, etc., on file, and with A. M. Adams, County Highway Engr. (See Construction News—Road and Street Construction.)

Road Construction.—St. Louis County Court, Mo.—Bids until Nov. 16 to grade, construct culverts, bridge, one course cement concrete pavement 18 to 20-ft. wide on 7.03 mi. Le May Ferry State road from St. Louis southwardly; cost \$291,318.55; plans, etc., on file, and with H. D. Griffith, Div. Engr., DeSoto, Mo. and State Highway Dept., Jefferson City, Mo. (See Road and Street Construction.)

Roofing.—American Wrecking & Salvage Co., Fort Oglethorpe, Ga.—Roofing. (See Buildings Proposed, Dwellings, Tenn., Chattanooga.)

Roofing (Tile).—L. C. Fallin, P. O. Box 331, Plant City, Fla.—Tile roofing. (See Buildings Proposed—Stores.)

Saws.—J. M. Torrence, Norcross, Ga.—Prices on resaw and swing cutoff saw, second-hand if in good condition.

Scales.—Dillard-Crawley Hardware Co., Blackstone, Va.—Names and addresses mfrs. self weighing scales without penny paying attachment.

Sewers.—City, W. S. Stancill, Commr. of Public Works, Charlotte, N. C.—Bids opened to construct \$70,000 ft. 5 to 8-in. sewers; Joseph Firth, City Engr. (See Construction News—Sewer Construction.)

Sewers.—City, O. Coffman, Mayor, Chickasha, Okla.—Bids opened to construct lateral sewers including Y's, manholes and appurtenances in Dist. No. 30; plans, etc., with J. R. Wellborn, City Clk. (See Construction News—Sewer Construction.)

Sewers.—City Clk., Carthage, Mo.—Bids opened to extend sewer system; lay 8-in. vitrified clay sewer pipe; Frank B. Newton, City Engr. (See Construction News—Sewer Construction.)

Sewers.—City, of Graham, Tex.—Bids until Nov. 22 to extend sewer system; Henry Exall Elrod Co., Consult. Engrs., Dallas, Tex. (Sewer Construction News—Sewer Construction.)

Sewers.—City, R. L. Thompson, Clk., Decatur, Tex.—Bids until Dec. 1 to extend sewer and water systems; Henry Exall Elrod Co., Consult. Engrs., Dallas, Tex. (See Construction News—Sewer Construction.)

Shear (Bevel Plate).—G. R. Mueller Co., Birmingham, Ala.—Dealers prices on either belt or motor driver bevel plate shear, capacity $\frac{3}{4}$ to $\frac{1}{2}$ -in. plate, Lennox preferred; age, specifications, location, etc.

Skylights.—L. C. Fallin, P. O. Box 331, Plant City, Fla.—Skylights. (See Buildings Proposed—Stores.)

Slinging (Power Gang) Machine.—Orleans Steel Products Co., 1025 Bienville St., New Orleans, La.—Prices on 36-in. Niagara power gang slinging machine; state age, weight, freight rate, etc.

Sterilizing Equipment.—Treasury Dept., Supvg. Archt.'s Office, Washington, D. C.—Bids opened Nov. 17 to furnish sterilizing equipment for U. S. P. H. hospital at Walla Walla, Wash.; plans on file.

Squaring or Gap Shear.—Orleans Steel Products Co., 1025 Bienville St., New Orleans, La.—Prices on 10-ft. Geo. A. Oil or equal power squaring or gap shear to cut $\frac{3}{16}$ material; state age, weight, freight rate, etc.

Tank.—Gulf Machinery and Ship Supply Co., 2128 Strand, Galveston, Tex.—60,000-gals. capacity tank with pump supplying 150 gals. per min. (See Construction News—Water-Work.)

Tanks.—J. Bacon Hyatt, 715 Gaither Estate Bldg., Baltimore, Md.—Lubricating oil tanks. (See Construction News—Motor Cars, Garages, Tires, Etc.)

Tanks, etc.—Becksmith Oil Co., 121 10th St., Warwood, Wheeling, W. Va.—Tanks, etc. for small gasoline plant. (See Construction News—Gas and Oil Enterprises.)

Thread (Wool and Cotton).—Jno. P. Turnley, Wayland, Ky.—Names and address

mfrs. of thread for weaving, both wool and cotton.

Threader (Bolt).—G. R. Mueller Co., Brown-Marx Bldg., Birmingham, Ala.—Dalters prices on either belt or motor driven bevel plate shear, capacity $\frac{3}{4}$ to $\frac{1}{2}$ in. plate, Lennox preferred; age, specifications, location, etc.

Transmission Equipment.—J. W. McDonald, Smithville, Ga.—Manilla rope, 90 ft. centers, for grain elevator.

Turbo or Engine Generating Set.—Standard Electric Machinery Co., 7 E. Hill St., Baltimore, Md.; 400 to 500 KVA. 3 phase, 25 cycle, prefer 480 volt turbo or engine generating set, 100 lb. steam, 20 lb. back pressure, non cond.; state serial numbers, age, use engine sizes, etc.; immediate delivery.

Water Works.—City, H. P. McCracken, Mayor, Olney, Tex.—Bids opened to construct earthen dam; Henry Exall Elrod Co., Conslt. Engr., Dallas, Tex. (See Construction News—Water-Works.)

Water-Works.—City of Graham, Tex.—Bids until Nov. 22 to extend water-works; Henry Exall Elrod Co., Conslt. Engrs., Dallas, Tex. (See Construction News—Water-Works.)

Water-Works.—City, R. L. Thompson, Clk., Decatur, Tex.—Bids until Dec. 1 to extend water-works; construct concrete dam; Henry Exall Elrod Co., Conslt. Engrs., Dallas, Tex. (See Construction News—Water-Works.)

Window Guards.—L. C. Fallin, P. O. Box 331, Plant City, Fla.—Window Guards. (See Buildings Proposed—Stores.)

Woodworking Equipment.—Indian Creek Land & Timber Co., Box 1094, Knoxville, Tenn.—Second-hand woodworking equipment including, circular resaw; circular rip saw, self feed; double end trim saw; 6-ft. swing cut-off saw; light type 18 to 24-in. three or four side planer and matcher; horizontal double spindle boring machine; vertical hollow chisel mortiser; belt sander; 24 to 30-in. cabinet planer.

Woodworking Machinery.—John L. C. Miller, Mt. Pleasant, N. C.—Prices on woodworking mchy. including matcher, band resaw, moulder, shaper, planer, rip and cut off saws, etc. (See Construction News—Woodworking Plants.)

New Financial Corporations.

Md., Baltimore—Court Square Building & Loan Assn., 20 E. Lexington St., capital \$25,000 inctd., by Allan W. Rhynhart, Paul R. Hassencamp.

Miss., Rosedale—Rosedale National Bank will organize with \$85,000 capital.

Okla., Driftwood—Security State Bank, capital \$10,000 inctd., by J. C. Beaty, F. M. Overstreet.

Okla., Faxon—Faxon State Bank, capital \$10,000 inctd., by G. A. Frampton, Faxon; W. F. Barber, Lawton, Okla.

Okla., Mustang—Mustang State Bank, capital \$10,000 inctd., by E. M. Brindley, Mustang; J. B. Spitzer, Yukon, Okla.

Tenn., Memphis—Warren Pullen, Inc., capital \$10,000 inctd. by Warren Pullen, J. Edgar Tate, Jr.

Tex., Coleman—Coleman County Loan & Building Co., capital \$10,000,000 inctd., by J. B. Dibrell, Jr., R. V. Wood.

Tex., Eastland—Eastland County National Bank will organize with \$50,000 capital.

Tex., El Paso—Tri-State Cattle Loan Co., capital \$100,000 inctd. by J. B. Irving, John Helms.

Tex., Goldthwaite—W. C. Dew Loan Co., capital \$50,000 inctd., by W. C. Dew, W. E. Fairman.

Tex., Gonzales—Gonzales Building & Loan Assn., capital \$1,000,000 inctd., by Jacob Michelson, W. D. Gardien.

Tex., Haskell—American National Bank, capital \$25,000 applied to Comptroller of Currency for organization.

Tex., Houston—Guaranty National Bank will organize with \$200,000 capital.

Tex., Marshall—Citizens Building & Loan Assn., capital \$100,000,000, applied for charter; stockholders are W. L. Barry, Bryan Blacklock and others.

Tex., Plainview—Plainview Building & Loan Assn., capital \$500,000 inctd., by C. T. Field, W. E. Risser.

Va., Harrisonburg—Harrisonburg Building & Loan Assn., capital \$250,000 inctd., with Isaac Ney, Prest.; C. G. Price, Secy.-Treas. (Previously noted.)

W. Va., Charleston—Virginian Savings & Loan Co., capital \$250,000 inctd., by John Lang, J. Y. Arter.

New Securities.

Ala., Anniston—School—City voted \$50,000 school bonds. Address The Mayor.

Ala., Birmingham—Road—Jefferson County Board of Revenue sold \$80,000 of 5 per cent road bonds. (Lately noted inviting bids.)

Ala., Decatur—School—City receives bids Nov. 10 on \$100,000 of per cent 20-yr. school bonds; E. W. Collier, Clk. (Lately noted bids Oct. 27.)

Ala., Troy—School, Auditorium, Hospital, Funding and Water—City, Frank P. Folmar, Mayor, will receive bids until Nov. 28 on \$150,000 of 6 per cent \$1000 denomination 30-yr. bonds, dated Jan. 1, 1922 as follows: \$15,000 school, \$65,000 funding, \$35,000 auditorium, \$10,000 hospital and \$25,000 water. (Lately noted voting bonds.)

Ark., Arkadelphia—Bridge—Whelen Bridge Dist., Clark County sold \$27,500 of 8-yr. bonds to M. W. Elkins & Co., Little Rock, Ark.

Ark., Star City—Drainage—Lincoln County Drainage Dist. No. 1 sold \$50,000 of 6 per cent 5 to 20-yr. bonds to M. W. Elkins & Co., Little Rock.

Fla., Bradentown—School—Bradentown Special School Dist. No. 1 sold \$105,000 of 6 per cent semi-annual \$1000 denomination school bonds to Hanchett Bond Co., Chicago.

Fla., Gainesville—Road and Bridge—Alachua County Road and Bridge Dist. No. 1 will sell \$500,000 of 6 per cent semi-annual \$1000 denomination bonds, dated Jan. 1, 1921.

Fla., Iverness—Sewer and Water—City voted \$75,000 sewer and water bonds. Address The Mayor. (Lately noted to vote.)

Fla., Jacksonville—School—Board of Public Instruction will vote Dec. 6 on \$1,000,000 school bonds. (Lately noted.)

Fla., Lauderdale—Park and Water—City voted \$60,000 park and water bonds. Address The Mayor.

Fla., Madison—Road—Madison County Comms. will vote Dec. 14 on \$75,000 road bonds.

Fla., Miami—Street Car and Dock—City voted \$400,000 bonds as follows: \$300,000 city dock and \$100,000 street car; Chas. W. Murray, City Engr.

Fla., Pensacola—Paving, Water and Sewer—City sold \$125,000 improvement bonds including \$50,000 paving, \$25,000 water and

\$70,000 sewer to Breed, Elliott & Harrison, Cincinnati, O. for \$127,550. (Lately noted inviting bids.)

Fla., Quincy—Electric—City will vote on \$10,000 electric light bonds. Address The Mayor.

Fla., Tampa—School—Jackson Heights School voted \$10,000 school bonds. Address Board of Education.

Fla., Tavares—Road—Lake County Comms. will receive bids until Dec. 5 on \$800,000 road bonds.

Ga., Atlanta—Refunding—Sinking Fund Comn. sold \$249,000 of $\frac{4}{2}$ per cent refunding bonds to Robinson-Humphries Co., at \$233,132.50.

Ga., Brunswick—Road—Glynn County Commr. Road and Revenue sold \$15,000 of 5 per cent road bonds to, Trust Co. of Georgia, Atlanta, Ga. (Lately noted inviting bids.)

Ga., Cedartown—Road—Polk County, T. W. Schliestett, Clk. will receive bids until Dec. 6 on \$100,000 of $\frac{5}{2}$ per cent semi-annual \$1000 denomination road bonds, dated Jan. 2, 1922, maturing Jan. 1, 1947.

Ga., Glennville—School—Glennville School Dist. sold \$30,000 of 6 per cent school bonds to Trust Co. of Georgia, Atlanta, Ga.

Ga., Jackson—Road and Bridge—Butts County plans voting on \$150,000 road and bridge bonds. Address County Commr. J. O. Gaston.

Ga., Jeffersonville—School—Jeffersonville Consolidated School Dist. sold \$45,000 of 6 per cent school bonds offered on Feb. 1 to, C. H. Coffin, Chicago, Ill.

Ga., Middleton—School—First Consolidated School Dist., J. Gordon Jones, Chrmn. School Board will receive bids until Nov. 21 on \$5,000 of 7 per cent bonds.

Ga., Monroe—School—Good Hope School Dist. sold \$21,000 of 7 per cent semi-annual \$1000 denomination school bonds; F. P. Prather, Chrmn. of Board. (Lately noted inviting bids.)

Ga., Perry—Water and Light—City, S. P. Crowell, Clk. voted \$15,000 water and light bonds. (Lately noted to vote.)

Ky., Benton—Road—Marshall County will vote in December on \$300,000 road bonds. Address County Comms.

Ky., Covington—Road and Bridge—Kenton County voted Nov. 8 on \$500,000 road and bridge bonds; Howard Stephens, Treas.

Ky., Lexington—School—Lexington School Dist. J. O. H. Simroll, Secy. Board of Education received bids Nov. 9 on \$400,000 of 5 per cent school bonds, dated Feb. 1, 1920. (Lately noted.)

Ky., Louisville—Road—Jefferson County, Otis B. Fifer, Treas., sold \$17,200 of 6 per cent road bonds to Fletcher American Co., Indianapolis, Ind. at par and accrued interest.

La., Donaldsonville—Road—Ascension Parish Road Dist. No. 4, R. J. Chauvin, Treas. will receive bids until Nov. 29 on \$80,000 of 6 per cent semi-annual \$500 denomination road bonds, dated July 15, 1921.

Md., Baltimore—General Improvement and Water—Richard Gwinn, City Register receives bids Nov. 14 on \$2,856,000 general improvement and \$1,286,000 water loan registered tax-free stock.

Md., Elkton—Road—Cecil County sold \$25,000 road and highway bonds to, Brooke, Stokes & Co., at 100.831.

Miss., Greenville—Drainage—Black Bayou Drainage Dist. will sell \$150,000 of 6 per cent drainage bonds; O. C. Kullicks, Dist. Secy. and Treas.

Miss., Louisville—Water and Light—Town, Edward M. Livingston, Mayor, will vote Nov. 29 on \$15,000 light and water bonds.

Miss., Tupelo—Drainage—Chiwaukee-Town Creek Drainage Dist. Lee & Monroe Counties sold \$38,000 of 6 per cent \$500 and \$100 denomination drainage bonds to, Bank of Commerce & Trust Co., Memphis, Tenn.

Mo., Carrollton—Drainage—Norhorne Lain Drainage Dist., received bids Nov. 4 on \$550,000 drainage bonds at office of Jones & Jones, Attorneys.

Mo., Caruthersville—Water—City plans voting on \$80,000 water bonds. Address The Mayor.

Mo., Clayton—School—St. Louis County voted \$76,520 school bonds. Address Board of Education.

Mo., Gallatin—Drainage—Muddy Creek Drainage Dist. sold \$140,000 of 6 per cent drainage bonds to, Little, Vardaman & Biting, Pape, Potter & Kaufman, Inc., and Lorenzo E. Anderson & Co., all St. Louis, Mo.

Mo., New Madrid—School—New Madrid County may vote on \$50,000 school bonds. Address County Commrs.

Mo., Trenton—Drainage—Honey Creek Drainage Dist. sold \$91,000 of 6 per cent \$1000 denomination drainage bonds to, Stern Bros. & Co., Kansas City, Mo.

Mo., Versailles—Water and Sewer—City will vote Nov. 22 on \$60,000 water and \$21,000 sewer system bonds. Address The Mayor. (Lately noted to vote Oct. 7.)

N. C., Concord—Sewer and Sidewalk—City, Geo. H. Richmond, Treas. will receive bids until Nov. 17 on \$75,000 of 6 per cent sewer and \$30,000 sidewalk bonds.

N. C., Henderson—School Board of Trustees Henderson Graded Schools, J. R. Teague, Secy. will receive bids until Nov. 22 on \$100,000 of 6 per cent semi-annual \$500 denomination school bonds, dated Aug. 1, 1921.

N. C., Fayetteville—School—Grays Creek Township School Committee receives bids Nov. 15 on \$25,000 of 6 per cent semi-annual Grays Creek Township School Dist. bonds, dated Nov. 1, 1921; Peter McK. Williams, Jr., Secy.

N. C., Kernersville—School Board of Trustees Kernersville Graded School Dist. will receive bids until Nov. 21 on \$25,000 of 6 per cent semi-annual \$1000 denomination school bonds, dated Oct. 1, 1921; Jas. J. Griffith, Secy. (Previously noted bids Oct. 15.)

N. C., Raleigh—Road—State sold \$5,000,000 of 5 per cent 20-yr. road bonds to syndicate of New York bankers through B. J. Van Ingen Co., New York.

N. C., Salisbury—Road—Rowan County sold \$500,000 road bonds to Seasongood Mayer, Cincinnati, O. at 101.15.

N. C., Shelby—Hospital—Cleveland County may issue \$100,000 hospital bonds of Township No. 6. Address County Commrs.

N. C., Washington—Street—City sold \$390,000 of 6 per cent street bonds; also sold \$200,000 street bonds to Hanchett Bond Co., Chicago, Ill.; J. R. Meekins, Clk. Lately noted inviting bids.)

N. C., Wilson—School—Wilson County, R. T. Barnes, Clk. Commrs. will vote Dec. 31 on \$25,000 Stantonsburg School Dist. bonds; also Dec. 30 on \$150,000 Old Fields Township bonds.

N. C., Winston-Salem—School, Water, General Improvement, City Hall and Incinerator—Board of Aldermen approved sale of \$1,370,000 bonds to Wachovia Bank & Trust Co., including \$800,000 school, \$250,000 water, \$100,000 general improvement, \$85,000 city hall and \$135,000 incinerator. (Previously noted inviting bids.)

N. C., Winton—Road—Hertford County sold \$250,000 road bonds to Spitzer, Rorrick Co., Toledo, O., at par and accrued interest.

Okla., Ada—Road and Bridge—Pontotoc County will vote Dec. 6 on \$850,000 road and bridge bonds. Address County Commrs.

Okla., Ardmore—Road—Carter County Commrs. votes Nov. 15 on \$500,000 of 6 per cent road bonds. (Supersedes recent item.)

Okla., Bartlesville—Road and Bridge—Washington County voted \$700,000 road bonds; Neva M. Scott, Clk. (Lately noted to vote.)

Okla., Chickasha—Park—City, Mayor O. Coffman will issue \$18,000 park bonds.

Okla., Claremore—Road—Rogers County will vote on road bonds. Address County Clk.

Okla., Enid—Water and Convention Hall—City sold \$275,000 of 6 per cent \$1000 denomination 25-yr. convention hall and water bonds to, A. J. McMahan, Oklahoma City, Okla., at par and accrued interest. (Lately noted, inviting bids.)

Okla., Holdenville—Sewer and Convention Hall—City sold \$30,000 sewer and \$15,000 convention hall bonds to, G. I. Gilbert, Oklahoma City. (Lately noted inviting bids.)

Okla., McAlester—Road—Pittsburgh County Commrs. will vote on \$750,000 road bonds.

Okla., Oklahoma City—Water, Sewer, Sewage Disposal, Storm Sewer, Fire Equipment, River Straightening and Parks—City will vote Nov. 26 on \$7,100,000 water, sewer, sewage disposal, storm sewer, fire equipment, river straightening and park bonds. Address Commrs. (Lately noted.)

Okla., Sayre—Water, Electric and Sewer—City sold \$40,000 electric, \$28,000 water and \$6,500 sewer bonds to, Ajax Construction Co., at par and interest. (Lately noted inviting bids.)

Okla., Wilson—Water, Sewer, Electric and Fire Equipment—City voted \$35,000 water, \$20,000 sewer, \$67,000 electric and \$8,000 fire equipment bonds; Isaac Roberts, Mayor. (Lately noted to vote.)

S. C., Florence—Street—City plans voting Dec. 20 on \$350,000 street bonds. Address The Mayor.

S. C., Greenville—School—Sam Poe School Dist. sold \$30,000 school bonds; M. C. Barton, Supt. Education.

S. C., Spartansburg—School—Fairforest School Dist. voted \$15,000 school bonds. Address Board of Education.

Tenn., Bristol—Funding, Street and Bridge—City sold \$17,000 of 6 per cent \$1000 denomination street, bridge and funding bonds to, Caldwell & Co., Nashville, Tenn., at par.

Tenn., Clarksville—Street and General Improvement—City sold \$82,600 of 10-yr. serial street bonds and \$82,000 of 20-yr. general improvement bonds, dated July 1, 1921. Address The Mayor.

Tenn., Clarksville—Paving—City will sell \$100,000 paving bonds. Address The Mayor.

Tenn., Hohenwald—Road—Lewis County, A. J. Hamlet Clk. County will receive bids until Nov. 21 on \$50,000 of 6 per cent \$1000 denomination road bonds, dated Nov. 1, 1921.

Tenn., Knoxville—Sewer and Incinerator—City sold \$150,000 improvement bonds including \$75,000 incinerator and \$75,000 sewer to, Merrill, Oldham & Co. Boston, Mass. at premium of \$3,500. (Lately noted.)

Tenn., Knoxville—Incinerator and Sewer—City received bids Nov. 8 on \$75,000 of 5 per cent incinerator bonds, dated Dec. 1, 1921 and \$75,000 of 6 per cent sewer bonds, dated Aug. 1, 1921. Address The Mayor.

Tenn., Lenoir City—Sewer—City, Mayor Witt voted \$150,000 sewer bonds.

Tex., Beaumont—School—South Park Independent School Dist. will vote Nov. 26 on \$300,000 school bonds. Address Board of Education.

Tex., Beaumont—Road—Jefferson County will vote Dec. 20 on \$2,000,000 road bonds. Address County Commrs.

Tex., Brenham—School—City voted \$10,000 school bonds. Address The Mayor.

Tex., Brownsville—Water—Cameron County Water Improvement Dist. No. 5 sold \$300,000 of 6 per cent semi-annual \$1000 denomination water bonds, dated Mar. 1, 1921 to, Banks, Huntley & Co., Bond & Goodwin & Tucker, Carstens & Earles, Inc., Frank & Lewis, Frick, Martin & Co., and Stevens, Page & Sterling; these bonds were registered with State Comptroller, Austin, Tex., on Apr. 24.

Tex., Bryan—Bridge—Brazos County voted Nov. 5 on \$100,000 of 6 per cent denomination bridge warrants. Address H. O. Ferguson. (Previously noted voting Oct. 29.)

Tex., Edinburg—Road—Hidalgo County will vote Nov. 22 on \$1,250,000 road bonds. Address County Commrs.

Tex., El Paso—School—Concordia Independent School Dist. sold \$40,000 school bonds. Address Board of Education. (Lately noted.)

Tex., El Paso—Water, Sewer, Street, Land, School, Library, Drainage—City will vote Dec. 27 on \$1,800,000 bonds as follows: \$500,000 water, \$240,000, \$500,000 school, \$375,000 sewer, \$100,000 park, \$10,000 library and \$125,000 drainage bonds; Charles Davis, Mayor. (Lately noted voting Oct. 11.)

Tex., Ferris—Water—City, M. McCall, Mayor, will sell \$55,000 of 6 per cent water bonds.

Tex., Fort Worth—Sewerage Disposal and Sewer and Storm Sewer—City sold \$725,000 of 5 per cent sewerage disposal system bonds to C. W. McNear Co., and Hallgarten Co. and \$375,000 of 5 per cent sewer and storm sewer bonds to Eldredge & Co., New York. (Supersedes recent item.)

Tex., Gonzales—School—Dist. No. 19, Five Mile School voted \$7,000 school bonds. Address Board of Education.

Tex., Lockhart—School—Caldwell County Fentress Independent County Line School Dist. will vote Dec. 10 on \$20,000 school bonds. Address Board of Education.

Tex., McKinney—Road—Attorney General, Austin, Tex., approved \$60,000 Dist. 31, \$21,000 Dist. 23 and \$24,000 Dist. 22 road bonds.

Tex., Plainview—Sewer—Attorney General, Austin, Tex., approved \$75,000 City of Plainview sewer bonds; these were registered in Comptroller's Dept.

Tex., Plano—Water—Attorney General, Austin, Tex., approved \$10,000 of 6 per cent serial water bonds.

Tex., Rusk—Road—Attorney General, Austin, Tex., approved \$450,000 Cherokee County road bonds.

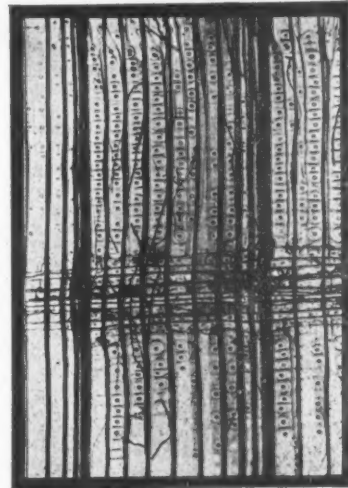
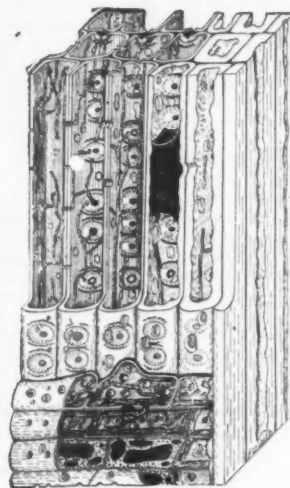
Tex., San Angelo—Street—City will vote Nov. 29 on \$150,000 street bonds. Address The Mayor.

Tex., Teague—School—Board of Education will vote Nov. 22 on \$50,000 school bonds. L. Notley, Supt. Schools. (Lately noted.)

Tex., Tyler—Road—Smith County sold \$300,000 of 5½ per cent road bonds offered on Oct. 19. Address County Commrs.

Va., Charlottesville—Road—Albermarle County, Scottsville Dist. will vote on \$205,000 road bonds. Address County Supr.

Tex., Tyler—Road—Attorney General, Austin, Tex., approved \$300,000 of 5 per cent road bonds.



"Decay illustrated: At left an ordinary block of wood honeycombed by wood destroying fungus as seen by the eye; at right, a magnified photograph of only the progress of decay. First only small holes appear in the cell walls, due to the penetration of the threads (hyphae) of the fungus. Then as the dissolving action proceeds further, the cell walls are gradually 'broken down' until destruction is completed. (Photographs and drawings supplied by the Dept. of Wood Technology, N. Y. State College of Forestry.)"

"Why Lumber Rots"

"Shorn of technical phraseology, wood decay is simply the destruction of the wood by plant organisms or fungi. These grow from microscopic spores—similar to seeds—whose roots permeate the wood structure, penetrating and 'breaking down' the cell walls.

"In their fruiting stage, these fungi take the form of moulds, masses of fine cotton-like threads, or mushroom growths varying in shape and color. A single one may throw off billions of spores which lodge on new timber. If conditions are favorable, these spores germinate and thus continue indefinitely the cycle of decay.

"While wood decay is prevalent practically everywhere, the rapidity with which it develops varies with the climate and the species of wood attacked. Its progress also depends upon air, moisture and warmth. Whenever wood comes in contact with the ground, masonry, concrete, or other wood, decay quickly develops and the timber at these points of contact usually has to be replaced long before the rest of the structure has been materially affected." (From *Carbosota* full-page advertisement in *The Saturday Evening Post* of June 18th.

Specify Carbosota for Preservative Treatment

Lumber for sub-flooring or roof-decks of buildings; timber for underground or surface construction at mines; poles and crossarms for electric transmission lines—to all these, and to many other forms of structural wood, preservative treatment with Carbosota gives definite protection against premature decay.

Why, then, discard wood? Why add to the cost and increase the difficulty of construction by employing substitutes for wood, when the trouble and expense incident to rot can so easily be overcome?

Lumber has many natural advantages, and when made decay-resistant by treatment with Carbosota there is added a degree of permanency that makes it unequalled for general building purposes.

But, to be effective, Carbosota must be used properly. Not only every step in the preservative treatment of the timber, but the species, grade and condition of the timber itself, should be fully covered by definite specifications.

Such specifications, specially adapted to meet any equipment and methods of procedure, may be obtained without cost by addressing our nearest office.

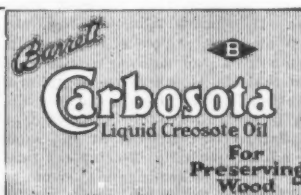
(Green wood cannot be effectively creosoted by non-pressure processes. It should be seasoned. All framing, drilling of bolt holes, etc., should be done before treatment. If this is impossible, two brush coats of Carbosota should be applied to all untreated surfaces exposed by subsequent cutting or drilling.)



Put up in 1- and 5-gallon cans, also metal drums and tank cars

What is Carbosota?

The ideal wood preservative for non-pressure treatments, i.e., Surface treatments (brushing, spraying and dipping) and the Open Tank process (hot and cold, or hot and cooling treatment). Carbosota is a standardized, highly refined liquid grade of pure coal-tar creosote oil, specially processed and uniform the world over.



The Barrett Company

New York	Chicago	Philadelphia	Boston	St. Louis
Cleveland	Cincinnati	Pittsburgh	Detroit	New Orleans
Birmingham	Kansas City	Minneapolis	Dallas	Nashville
Syracuse	Seattle	Poor	Atlanta	Duluth
Salt Lake City	Pangor	Washington	Johnstown	Lebanon
Youngstown	Milwaukee	Teledo	Columbus	Richmond
Lafayette	St. Louis	Elizabet	Buffalo	Baltimore
Omaha	Houston	Denver	Jacksonville	

THE BARRETT COMPANY, Limited: Montreal Toronto
Winnipeg Vancouver St. John, N. B. Halifax, N. S.

Tex., Vernon—Road—Wilbarger County voted \$600,000 road bonds. Address County Commrs. (Lately noted to vote.)

Va., Alexandria—Strother, Brogden & Co. and Mercantile Trust & Deposit Co., Calvert & Redwood Sts., Baltimore, purchased \$125,000 bonds of City of Alexandria, at 5.75 to 5.85 basis.

Va., Bristol—Refunding and School—City, B. E. Ballard, Clk., will receive bids until Nov. 21 on \$50,000 of 30-yr. refunding and \$25,000 serial school bonds.

Va., Chatham—School—Pittsylvania County Supvrs. sold \$400,000 of 6 per-cent semi-annual 25-yr. \$1000 denomination school bonds to, Bray Bros., Greensboro, N. C., at \$57.400. (Lately noted inviting bids.)

Va., Danville—Street—City sold \$50,000 paving bonds to C. W. McNary & Co., Chicago, Ill., at 101.02.

W. Va., Ceredo—Sewer—City will vote Nov. 19 on \$23,000 sewer bonds. Address The Mayor.

W. Va., Huntington—School—Board of Education may issue \$2,000,000 school bonds; C. L. Wright, Supt.

W. Va., Morgantown—Sewer and City Hall—City plans voting on about \$1,000,000 sewer and city hall bonds; Jos. V. Funderburk, Engr.

Financial Notes.

Commerce Trust Co., Kansas City, Mo. took over Midwest Trust Co.; deposits are increased from \$70,000,000 to \$80,000,000.

First Safety Deposit Co., El Paso, Tex. increases capital from \$25,000 to \$60,000.

The Investment Bankers' Association, which held its annual convention at New Orleans, elected officers for the ensuing year as follows: Prestl, Howard F. Beebe, of New York; Vice-Prests., Thos. Gates, Philadelphia; N. Penrose Hallowell, Boston; R. S. Hecht, New Orleans; John A. Prescott, New Orleans; Eugene M. Stevens, Chicago; Treas., McPherson Browning, Detroit; Sec., Fredk. R. Fenton, Chicago.

Trade Literature

Structural Slate in Laundries, Etc.

The Structural Slate Company, Pen Argyl, Pennsylvania, have issued through the Structural Service Bureau, Philadelphia, three new bulletins, respectively Chapters 6, 7 and 8, displaying and describing the application of structural slate to laundry tubs, sinks, sink tops, shower stalls and other lavatory features. The bulletins are attractively prepared and present full information accompanied by excellent illustrations.

Another Branch Office Opened.

The Anderson Foundry & Machine Co., of Anderson, Ind., have opened a branch office at Crowley, La., with the intention of carrying stock engines and also repair parts for the Anderson oil engine. This station is under the supervision of F. D. Hawthorne, district manager there. This company has issued Bulletin No. 23 presenting an analysis of the Type K engine which they build. The descriptions are complete but there are also numerous illustrations, besides useful tabular data. Facts about this engine, accompanied by many pictures, are also issued in a well prepared folder. The company has branch houses in many cities of the South besides in other parts of the country.

An Economical Cleaning Product

The India Alkali Works, Boston, Mass., have issued a folder about their well known product "Savogran," which is described as being most economical and does all kinds of cleaning well. This publication also presents the company's offer of a demonstration at their expense. The product is a pure dry powder taking the place of soap.

A Booklet About Corliss Engines

Bulletin No. 54 of the C. & G. Cooper Co., engine builders, Mt. Vernon, Ohio, is a finely prepared booklet of large pages describing and illustrating the latest improvements in the design of Corliss engines. The company is now building Corliss engines in sizes ranging from 150 to 5,000 horsepower. The business was founded in 1833 by Charles and Elias Cooper, their first shop being erected on the site of the present modern plant. Their first Corliss engine was produced in 1869.

Valuable Book About Wooden Tanks

"Wooden Tanks for Every Purpose" is a book of more than 60 pages issued by the Hauser-Stander Tank Co., Cincinnati, Ohio. It is fully illustrated and some of the pictures show tanks of different kinds in use. Complete tables of dimensions are given, besides much other tabular data of value. An important feature is an article by S. J. Hauser and Clarence Bahlman entitled "A Study of the Action of Various Chemicals Upon Different Woods Used for Chemical Tanks."

Drop Forging Campaign Among Farmers.

The American Drop Forging Institute, with national headquarters in the Hanna Bldg., Cleveland, Ohio, has begun a campaign of publicity and educational promotion of drop forged products, its appeal being now directed mainly to farmers, who are among the largest buyers of different kinds of machinery. Delay from breakages of parts on a machine during a busy season are both costly and annoying to agriculturists, who will appreciate the great advantages of having all strain bearing parts made of drop forged material. A book entitled "What is a Drop Forging?" may be obtained free from the Institute.

Small Tractor for Farmers

The new model F. Cletrac tank type tractor is thoroughly described and illustrated in a large folder by the manufacturers, the Cleveland Tractor Co., of Cleveland, Ohio, who state that in this machine farmers are offered a tractor that handles every farm job and at a price they can afford to pay; it actually replaces the horse and the mule. This tractor weighs only 1,820 pounds, is but 83 inches long, 32 inches wide, and 50 inches high, yet it will plow, it is stated, from 6 to 8 acres of ground a day, disc 15 to 20 acres in the same time or harrow 20 to 25 acres or cultivate 10 to 20 acres. It can also be employed to do haulage and all ordinary belt work. The manufacturers are seeking dealers in all parts of the country to market the new machine.

INDUSTRIAL NEWS OF INTEREST

Items of news about industrial, railroad or financial interests, building operations, construction work, municipal improvements, or the sale of machinery or the letting of contracts in the South or Southwest, are invited from our readers whether they are advertisers or subscribers or not. We invite information of this character from readers in the North and West about their Southern business operations, as well as from Southern readers. News of value will be published just as readily when from non-advertisers as from advertisers.

Important Sale of Mill Property.

In another column appears the formal announcement of the sale at public auction of the Blue Ridge Knitting Mills property to take place at 1 P. M. in Hagerstown, Maryland on November 22. The sale will include the mill building 40 by 240 feet and its equipment. Alexander Armstrong and others are the trustees.

Knighted for Welfare Work.

Edwin B. Stimpson, president of the Edwin B. Stimpson Company, manufacturers of eyelets, rivets, etc., Brooklyn, New York, has been made a Knight of the Crown of Italy, in recognition of his patriotic work among Italians in that city during the world war. The decoration of knighthood was conferred at the office of the Italian Consul in New York, the consul himself, Commandatore T. Bernardi, planning the decoration on Mr. Stimpson's breast, accompanying the act with a short address expressing the thanks and appreciation of the King of Italy for his welfare work.

A New Calculating Machine Introduced.

The new Model K. Monroe calculating machine, manufactured by the Monroe Calculating Machine Co., Woolworth Bldg., New York, was introduced to the public for the first time at the New York Business Show in October. It is made in three sizes, viz. 20-place, 16-place and 12-place, thus supplying a machine for every figuring requirement. It is noted that the keystems are of uniform height, making it easy to span a set up. The crank is short and either a forward or a backward turn is completed at the same point, the natural position. During the turn the mechanism is locked against error or change. Moreover, the crank can be easily

and instantly removed, thus protecting work if the operator is interrupted. It is also asserted that every feature of the machine conduces to speed and accuracy.

Sales Manager Appointed

E. L. Callahan has been appointed sales manager of the Westinghouse Lamp Co. and will be located at their executive offices, 165 Broadway, New York City, succeeding Elliot Reid, resigned. He has been district manager in their Chicago office for several years. Before becoming connected with this company, Mr. Callahan, who is an alumnus of the Case School of Applied Science (Class of 1900), was successively engaged in electrical work with the U. S. War Department, the Westinghouse Church Kerr Co., New York, the Simplex Heating Co., of Boston, the General Electric Co. at Chicago, and H. M. Byllesby & Co. also of Chicago.

Large Mining Development Plans.

The Southern Coal & Iron Corporation has leased,—with an option of purchase,—the 600 ton electrically equipped Simpson breaker, the Ainsley and the Tipperary anthracite coal mines, with a 300 ton breaker, all near Carbondale, Pa. These properties are estimated to contain at least 2,200,000 tons of anthracite coal and can ship 600 ton daily. The Corporation intends to put them into immediate operation under the direction of Murray B. Courtright, of Courtright, Dimick & Co., coal operators of Philadelphia and New York. The other property of the corporation at Rittenhouse Gap, Pa., is now shipping iron concentrates and the plant is being augmented with the expectation that it will ultimately be placed on a shipping basis of 500 tons of iron ore concentrates and 600 tons of sand daily. It is in the heart of the furnace district of Eastern Pennsylvania.



Attractive Reductions in Cost of Handling Phosphate

Attractive reductions in cost of handling acid phosphate are being effected by many large fertilizer plants. The American Agricultural Chemical Co., for instance, finds that it *pays* to unload raw materials and load fertilizer with three Lakewood storage battery trucks.

Facts and figures on reducing fertilizer costs with Lakewood methods and machines are available to interested executives.



The Lakewood Engineering

Company, Cleveland U.S.A.

FULL SPEED AHEAD

*The Tracks are Clear for
Southern Business Prosperity*



Open wide the business throttle. Put on every ounce of steam. Business has rounded the corner and has a straight road ahead to greater and bigger prosperity.

The steady rise in cotton will add over \$750,000,000 to the purchasing power of the South—the first section of the country to show real evidence of business revival.

Industrial activities are expanding, building construction is increasing and public work, especially road building, is being pushed harder than ever.

The South will need equipment and material of all kinds.

The Manufacturers Record, for 40 years the South's leading business paper, is in a position to put you closely in touch with active forces of this section.

Manufacturers Record

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THE FOUNDATION COMPANY

is an organization of Construction Engineers specializing in the building of difficult superstructures and substructures.

The enviable reputation gained in its early history for trustworthy underground construction has followed it into the field of General Engineering Contracting.

Included among the structures completed by The Foundation Company are the following:

- Industrial Plants
- Dams and Hydro-electric Developments
- Power Plants
- Buildings, Offices, Warehouses, Factories
- Housing Developments
- Railroads and Terminals
- Filtration and Sewage Plants
- Foundations, Shoring and Underpinning
- Bridge Piers and Bridges
- Sea Walls, Wharves, Bulkheads and Piers
- Mine Shafts
- Tunnels and Intakes
- Refineries
- Highways

THE FOUNDATION COMPANY

CITY OF NEW YORK

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NEW ORLEANS
CHICAGO
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DETROIT

SAN FRANCISCO
LOS ANGELES
PHOENIX
PORTLAND, ORE.

MONTREAL, CANADA
PARIS, FRANCE
LIMA, PERU
HAVANA, CUBA
TAMPICO, MEXICO

BUILDERS OF SUPERSTRUCTURES AS WELL AS SUBSTRUCTURES

Manufacturing Census of Arkansas, Georgia, Maryland, North Carolina and Tennessee Cities.

Recent preliminary statements have been issued by the Census Bureau covering the industrial growth since 1914 of the principal cities of Arkansas, Georgia, Maryland, North Carolina and Tennessee. Comparison is given of the number of establishments with capital over \$500 and excluding, hand and building trades and neighborhood industries in 1919 and 1914, capital invested in manufacturing, and value of products for the following:

	1919.	1914.	Percent of Increase.
Fort Smith, Ark.			
Number of establishments	115	103	11.7
Capital	\$9,634,000	\$4,440,000	117.0
Value of products	14,813,000	4,646,000	218.8
Hot Springs, Ark.			
Number of establishments	70	42	66.6
Capital	\$1,100,000	\$580,000	89.7
Value of products	1,642,000	627,000	161.9
Little Rock, Ark.			
Number of establishments	244	149	63.8
Capital	\$13,893,000	\$5,943,000	133.8
Value of products	23,176,000	7,755,000	198.8
North Little Rock, Ark. (Name changed from Argenta)			
Number of establishments	30	21	42.8
Capital	\$3,712,000	\$1,795,000	106.8
Value of products	8,708,000	3,426,000	154.2
Pine Bluff, Ark.			
Number of establishments	47	55	-14.5
Capital	\$5,751,000	\$4,501,000	27.8
Value of products	9,095,000	4,518,000	101.3
Albany, Ga.			
Number of establishments	23	Less than 10,000	
Capital	\$2,064,000	population in 1914.	
Value of products	2,694,000		
Athens, Ga.			
Number of establishments	42	48	—
Capital	\$6,036,000	\$3,230,000	86.9
Value of products	7,718,000	3,023,000	155.3
Atlanta, Ga.			
Number of establishments	503	423	18.9
Capital	\$68,355,000	\$36,084,000	89.4
Value of products	114,249,000	\$41,279,000	176.8
Augusta, Ga.			
Number of establishments	93	73	27.4
Capital	\$22,507,000	\$13,959,000	61.2
Value of products	37,161,000	12,138,000	206.2
Brunswick, Ga.			
Number of establishments	46	34	35.3
Capital	\$5,391,000	\$831,000	548.7
Value of products	6,191,000	841,000	636.1
Columbus, Ga.			
Number of establishments	74	71	4.2
Capital	\$26,143,000	\$10,561,000	147.5
Value of products	35,562,000	10,619,000	234.9
LaGrange, Ga.			
Number of establishments	24	Less than 10,000	
Capital	\$16,409,000	population in 1914.	
Value of products	20,235,000		
Macon, Ga.			
Number of establishments	135	70	92.9
Capital	\$25,373,000	\$11,552,000	119.0
Value of products	57,721,000	18,867,000	205.9
Rome, Ga.			
Number of establishments	64	50	28.0
Capital	\$5,351,000	\$2,604,000	105.5
Value of products	8,699,000	3,301,000	163.5
Savannah, Ga.			
Number of establishments	147	129	14.0
Capital	\$18,276,000	\$10,247,000	78.4
Value of products	18,603,000	6,709,000	177.3
Valdosta, Ga.			
Number of establishments	38	Less than 10,000	
Capital	\$2,571,000	population in 1914.	
Value of products	3,912,000		
Waycross, Ga.			
Number of establishments	22	27	—
Capital	\$2,455,000	\$538,000	356.3
Value of products	4,443,000	\$2,086,000	113.0
Annapolis, Md.			
Number of establishments	15	Population less than	
Capital	\$504,000	10,000 in 1914.	
Value of products	369,000		
Baltimore, Md.			
Number of establishments	2,797	2,502	11.8
Capital	\$434,244,000	\$177,301,000	144.9
Value of products	677,878,000	215,172,000	215.0
Cumberland, Md.			
Number of establishments	82	74	10.8
Capital	\$10,282,000	\$5,135,000	100.2
Value of products	15,842,000	7,113,000	122.7
Frederick, Md.			
Number of establishments	77	57	35.0
Capital	\$4,498,000	\$2,788,000	61.3
Value of products	7,141,000	3,167,000	125.5
Hagerstown, Md.			
Number of establishments	122	113	8.0
Capital	\$13,968,000	\$6,718,000	108.1
Value of products	17,663,000	7,412,000	138.8
Asheville, N. C.			
Number of establishments	51	45	13.8
Capital	\$5,074,000	\$2,913,000	74.2
Value of products	7,091,000	3,149,000	125.2
Charlotte, N. C.			
Number of establishments	111	107	3.7
Capital	\$21,986,000	\$11,808,000	86.2
Value of products	43,096,000	10,962,000	293.1
Durham, N. C.			
Number of establishments	74	62	19.3
Capital	\$43,499,000	\$17,752,000	145.0
Value of products	70,659,000	27,597,000	156.0
Gastonia, N. C.			
Number of establishments	34	Less than 10,000	
Capital	\$11,690,000	population in 1914.	
Value of products	12,013,000		
Goldensboro, N. C.			
Number of establishments	50	Less than 10,000	
Capital	\$3,361,000	population in 1914.	
Value of products	4,143,000		
Greensboro, N. C.			
Number of establishments	83	70	18.6
Capital	\$6,602,000	\$4,138,000	59.5
Value of products	7,458,000	3,464,000	115.3
High Point, N. C.			
Number of establishments	81	82	—
Capital	\$8,403,000	\$4,915,000	71.0
Value of products	14,869,000	5,932,000	150.7
Newbern, N. C.			
Number of establishments	62	29	113.8
Capital	\$5,196,000	\$2,562,000	102.8
Value of products	5,702,000	1,911,000	198.4
Raleigh, N. C.			
Number of establishments	83	59	41.2
Capital	\$5,029,000	\$2,012,000	150.0
Value of products	6,871,000	2,916,000	136.6
Rocky Mount, N. C.			
Number of establishments	26	20	30.0
Capital	\$2,487,000	\$999,000	148.9
Value of products	4,904,000	2,743,000	78.8
Salisbury, N. C.			
Number of establishments	31	Less than 10,000	
Capital	\$4,285,000	population in 1914.	
Value of products	5,127,000		
Wilson, N. C.			
Number of establishments	18	Less than 10,000	
Capital	\$4,069,000	population in 1914.	
Value of products	5,689,000		
Wilmington, N. C.			
Number of establishments	65	71	—
Capital	\$5,449,000	\$3,699,000	47.8
Value of products	10,537,000	5,026,000	109.6
Winston-Salem, N. C.			
Number of establishments	93	73	27.4
Capital	\$93,121,000	\$25,703,000	262.3
Value of products	200,485,000	37,288,000	437.7
Bristol, Tenn.			
Number of establishments	25	26	-3.8
Capital	\$1,743,000	\$908,000	92.0
Value of products	1,834,000	855,000	114.5
Chattanooga, Tenn.			
Number of establishments	281	276	1.8
Capital	\$36,537,000	\$20,716,000	76.4
Value of products	58,022,000	20,369,000	184.9
Jackson, Tenn.			
Number of establishments	50	46	8.7
Capital	\$6,581,000	\$3,096,000	112.6
Value of products	8,316,000	3,417,000	143.4
Johnson City, Tenn.			
Number of establishments	36	30	20.0
Capital	\$4,472,000	\$1,736,000	157.6
Value of products	8,801,000	2,600,000	238.5
Knoxville, Tenn.			
Number of establishments	194	142	36.6
Capital	\$35,576,000	\$4,773,000	645.4
Value of products	51,694,000	7,346,000	603.7
Memphis, Tenn.			
Number of establishments	379	354	7.1
Capital	\$67,107,000	\$44,435,000	51.0
Value of products	\$117,718,000	\$39,133,000	200.8
Nashville, Tenn.			
Number of establishments	391	354	10.5
Capital	\$44,422,000	\$28,966,000	53.4
Value of products	71,108,000	33,276,000	113.7

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MANUFACTURING

Bank and Commercial Stationers

BALTIMORE, MD.



Bids close November 28, 1921.

UNITED STATES ENGINEER OFFICE.
Baltimore, Md. Sealed proposals will be received here until 1 P.M., November 28, 1921, and then opened, for dredging Baltimore Harbor, Maryland. Further information on application.

Bids close December 5, 1921.

TREASURY DEPARTMENT, Supervising Architect's Office, Washington, D. C., November 10, 1921. Sealed proposals will be opened in this office at 3 p.m., December 5, 1921, for new loading shed, mailing vestibule, etc., United States Post Office, New Brunswick, N. J. Drawings and specifications may be obtained from the Custodian of the building, New Brunswick, N. J., at this office, in the discretion of the Supervising Architect, Jas. A. Wetmore, Acting Supervising Architect.

Bids close November 21, 1921.

\$50,000 6% Highway Serial Bonds LEWIS COUNTY, TENNESSEE.

Hohenwald, Tenn.

The undersigned will receive sealed bids at his office in Hohenwald, Tennessee, until 1:45 o'clock, p.m., Monday, November 21, 1921, for the purchase of the following six per cent (6%) bond issue of Lewis County, Tennessee, denomination \$1000, issued for the purpose of providing means for the payment of the county's one-third of the estimated cost of certain State and Federal Aid Highway Improvements. Bonds dated November 1, 1921, principal and semi-annual interest (May first and November first) payable at the County Trustee's Office in Hohenwald or at the Fourth and First National Bank at Nashville, Tennessee, at holder's option; bonds maturing November 1st, annually, as follows:

\$2,000.00, 1922; \$2,000.00, 1923; \$3,000.00, 1924; \$3,000.00, 1925; \$3,000.00, 1926; \$3,000.00, 1927; \$3,000.00, 1928; \$3,000.00, 1929; \$3,000.00, 1930; \$2,000.00, 1931; \$2,000.00, 1932; \$2,000.00, 1933; \$2,000.00, 1934; \$2,000.00, 1935; \$2,000.00, 1936; \$2,000.00, 1937; \$2,000.00, 1938; \$5,000.00, 1939; \$3,000.00, 1940; \$3,000.00, 1941.

These bonds are declared by law to be an absolute and general obligation of Lewis County and general tax levy for their payment is required by law not exceeding 100 cents on the \$100, at the assessed valuation for the year of authorization. Bonds registerable as to principal at the Fourth and First National Bank at Nashville, or at the Trustee's Office at Hohenwald, Tennessee; the legality of same will be approved by A. G. Ewing, Jr., Attorney of Nashville, Tennessee, whose approving opinion will be furnished purchasers without charge; neither the principal nor the interest of said bonds will be taxed by the State of Tennessee or by any County or Municipality thereof.

All bids must be upon blank forms which will be furnished by the undersigned and all bids must be accompanied by a certified check upon a national bank, or upon any bank or trust company in Tennessee, for \$1000.

The bids will be delivered at the Fourth and First National Bank at Nashville, Tennessee, at 12 o'clock, noon, December 6th, 1921, or at Hohenwald, Tennessee, on December 6th, 1921.

The right to reject any and all bids is expressly reserved.

Hohenwald, Tennessee, Lewis County, October 31st, 1921.

A. J. HAMLETT,

Clerk of the County Court of Lewis County, Tennessee.

Bids close December 6, 1921.

\$500,000 6% Bonds

Gainesville, Fla.

The Board of Bond Trustees of Special Road and Bridge District No. 1, Alachua County, Florida, will on December 6th, 1921, at 10 o'clock A. M., receive at the office of the Trustees in the Court House at Gainesville, Florida, bids under seal for five hundred (500) Bonds of the par value of \$1000.00 each, bearing 6 per cent. interest (J. & J. 1). Bidders required to make deposit of \$5000.00 with bid. Trustees reserve the right to reject any or all bids and to sell the entire issue or any part thereof. Approving opinion of Chester B. Masslich, of New York, will be furnished.

Bonds maturing as follows:
\$10,000 in 1925, \$15,000 in 1926, \$16,000 in 1927, \$17,000 in 1928, \$18,000 in 1929, \$19,000 in 1930, \$20,000 in 1931, \$21,000 in 1932, \$22,000 in 1933, \$23,000 in 1934, \$24,000 in 1935, \$25,000 in 1936, \$26,000 in 1937, \$27,000 in 1938, \$28,000 in 1939, \$29,000 in 1940, \$30,000 in 1941, \$31,000 in 1942, \$32,000 in 1943, \$33,000 in 1944, \$34,000 in 1945.

R. C. BOWERS, Secretary.
Gainesville, Fla.

Bids close December 6, 1921.

\$100,000 5 1/2% Road and Highway Bonds

POLK COUNTY, GEORGIA

Cedartown, Ga.

Sealed bids will be received by T. W. Schliestett, Clerk, until noon Tuesday, December 6th, 1921 for \$100,000 5 1/2% coupon bonds dated January 2, 1922, maturing January 1, 1947; denomination \$1000; semi-annual interest payable January and July. Bids for all or any portion of issue will be considered. Certified check for 2% of bid must accompany each bid. County will bid on \$3000 of bonds to invest sinking fund. Principal and interest payable in gold at National Bank of Commerce, New York City. Legal opinion of Caldwell & Raymond, New York City, approving validity of issue, will be furnished purchaser. For further information apply to

JOHN K. DAVIS,
Chairman.
Cedartown, Ga.

Population of County 1920 20,357
Census
Assessed valuation of taxable property, 1920 \$9,629,253
Total Bonded Indebtedness, exclusive of this issue 100,000
Bonds will be delivered on January 3, 1922 at Cedartown, Ga. or at National Bank of Commerce, New York, as preferred.

Bids close December 5, 1921.

\$14,000 6% Road Bonds

Sealed bids are invited to be filed with the undersigned on or before MONDAY, DECEMBER 5th 1921 AT 2 O'CLOCK P. M. for the sale of 28 good roads bonds of Supervisors District No. 3 of Noxubee County, Mississippi, dated July 1st, 1921, of \$500, each, due 2 bonds on Aug. 1st of each of the years 1928 to 1941, both inclusive. Interest 6% per annum payable on Feb. and Aug. 1st of each year, principal and interest payable at Chemical National Bank, New York City.

This Nov. 10, 1921.

JOHN A. TYSON,
Clerk Board Supervisors,
(P.O.) Macon, Miss.

\$300,000 6% Road and Bridge Bonds

For Sale \$300,000 East Lake County, Fla. Special Road and Bridge six per cent Bonds on Nov. 28th. Total issue is \$600,000. Bids will be received for any amount up to \$300,000. Issue approved by Caldwell & Raymond, New York. For full particulars address

T. C. SMYTH, Clk.,
Board Co. Commissioners,
Tavares, Fla.

Bids close December 12, 1921.

\$327,000 5% Bonds

Tallahassee, Fla.

The STATE ROAD DEPARTMENT OF FLORIDA will receive bids until 10 o'clock A. M. December 12, 1921, for the purchase of \$262,000 Columbia County 5% Bonds and \$65,000 Baker County 5% Bonds.

This Department is the owner and holder of these Bonds and is authorized to sell them upon such terms as it deems advisable. Bids for each of the issues will be considered. For further information apply to the State Road Department at Tallahassee, Florida.

Each bid must be accompanied by a certified check payable to the undersigned Chairman of the Department, in the sum of \$1000 as guaranty of good faith.

The right to reject any and all bids is reserved.

I. B. PHILIPS,
Chairman.

Bids close December 6, 1921.

Hard Surface Highway

Gastonia, N. C.

Sealed bids will be received at the office of The Gaston County Board of Commissioners in the Court House at Gastonia, N. C., up to twelve o'clock noon Dec. 6th and then opened and publicly read for the construction of 5 1/4 miles 12' wide of hard surface highway. This work includes building up and repairing present Macadam road and construction of bituminous wearing surface. Bids will be asked on Bituminous Macadam (Penetration Method) Bituminous Concrete (Topeka Mix) and Rock Asphalt.

Each bid must be sealed and marked on the outside. Proposal to Construct Union Road, and addressed to the Board of County Commissioners, Gaston County, Gastonia, N. C. together with the address of the firm or party bidding.

Certified check equal to 5% of either of the amount bid, payable to Treasurer of Gaston County, must accompany each bid. The bids will be tabulated at once and contract awarded within three days. Plans and specifications may be obtained upon payment of \$2.00 at the Office of Gaston County Highway Engineer, Gastonia, N. C.

Right is reserved to reject any or all bids.
Gaston County Board of Commissioners,

R. K. DAVENPORT,
Chairman.

D. L. STRUTHERS,
Highway Engineer.

Bids close November 29, 1921.

Paving, Storm Sewers, Etc.

Darlington, S. C.

Sealed bids will be received by the City Council of Darlington, S. C. up to 4 P. M. November 29th, for the construction of approximately 35,000 square yards of Paving with appurtenances to same.

Bids will be received on the following types of paving,

Sheet Asphalt
Asphaltic Concrete
Portland Cement Concrete
Brick

Concrete curbing and the necessary Storm Sewers.

Specifications and list of quantities may be obtained from Lee, Pennell and Murray, Consulting Engineers, Sumter, S. C. upon receipt of check for \$2.00 which will be returned when Specifications are returned in good condition. Plans can be seen at Engineers office.

Certified check, made payable to Clerk and Treas. for \$1000 to accompany each bid. City Council reserves the right to reject any or all bids.

J. A. McLEOD,

Mayor.

E. VAUGHN,

Clerk and Treas.

Lee, Pennell and Murray,
Engineers,
Sumter, S. C.

Bids close December 5, 1921.

\$11,500 6% Road Bonds

Sealed bids are invited to be filed with the undersigned on or before MONDAY DEC. 5th, 1921 AT 2 O'CLOCK P. M., for the sale of 23 good roads bonds of Supervisors District No. 4, of Noxubee Co., Miss., dated Sept. 1, 1921, of \$500 each, due respectively on Sept. 1st of each of the years 1922 to 1944, both inclusive, interest 6% per annum payable Sept. 1 and March 1st of each year, principal and interest payable at Chemical National Bank, New York City.

This Nov. 10, 1921.
JOHN A. TYSON,
Clerk Board Supervisors,
(P.O.) Macon, Miss.

Bids close November 29, 1921.

Reinforced Concrete Bridge

STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS
Sealed Proposals for building the following bridge, as follows:
ANNE ARUNDEL CO. CONT. AB-16—Reinforced Concrete Bridge over the Severn River near Annapolis, consisting of 24 Spans each 65'-0" clear with a total length of 1593'-0" Roadway 22'-0" with 2'-6" Sidewalks, together with all necessary piers, abutments, paving and earth fill approaches. Plans furnished after November 14, 1921.

will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 29 day of November 1921, at which time and place they will be publicly opened and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserves the right to reject any or all bids.

By order of the State Roads Commission this 7 day of November 1921.

L. H. STEUART,
Secretary.

J. N. MACKALL,
Chairman.

Bids close November 22, 1921.

Reinforced Concrete Arch Bridge.

STATE OF MARYLAND
STATE ROADS COMMISSION
NOTICE TO CONTRACTORS

Sealed Proposals for building the following bridge:
HARFORD COUNTY—CONT. No. H-29:

Double 54'-0" Span Reinforced Concrete Arch Bridge Over Little Gunpowder Falls, between Baltimore and Harford Counties on the Belair Road, including earth fill and removal of present truss bridge.

Will be received by the State Roads Commission, at its offices, 601 Garrett Building, Baltimore, Maryland, until 12 M. on the 22 day of November 1921, at which time and place they will be publicly open and read.

Bids must be made upon the blank proposal form which, with specifications and plans will be furnished by the Commission upon application and cash payment of \$1.00, as hereafter no charges will be permitted.

No bids will be received unless accompanied by a certified check for the sum of Five Hundred (\$500) Dollars, payable to the State Roads Commission.

The successful bidder will be required to give bond, and comply with the Acts of the General Assembly of Maryland, respecting contracts.

The Commission reserve the rights to reject any and all bids.

BY ORDER of the State Roads Commission this 7 day of November 1921.

L. H. STEUART, Secretary.

J. N. MACKALL, Chairman.

Bids close November 29, 1921.

Paving, Sewers, Etc.

Wilmington, N. C.

Sealed proposals will be received until three o'clock p.m., November 29th, 1921, at the office of the Commissioner of Public Works, Wilmington, N. C. for the construction of approximately ninety thousand square yards of either sheet asphalt, asphaltic concrete, bitulithic, Kentucky rock, brick or concrete pavement, with storm sewers and appurtenances.

Each bid shall be accompanied with a certified check to the amount of 5% of the bid. Plans and specifications are on file with R. C. Cantwell, Commissioner of Public Works, and with the Engineers. Copies of these will be furnished on request, and a deposit of \$5 will be required on specifications and \$10 on the plans. These amounts will be refunded upon return of the plans and specifications.

R. C. CANTWELL,
Commissioner of Public Works.

The Carolina Engineering Company,
Wilmington, N. C., Engineers.

Bids close December 20, 1921.

Proposals for Lighting the City of Baton Rouge

Sealed bids will be received until Tuesday December 20th, 1921, at 12 o'clock noon for lighting the City of Baton Rouge with electricity for periods of Two, Five and Ten Years, with not less than Two Hundred and Fifty (250) to Five Hundred (500) incandescent street series lamps. Also for furnishing electricity for lighting municipal buildings and to operate motors for all city purposes.

All proposals shall be based upon the specifications adopted by the Commission Council and on file in the office of the Commissioner of Finance, City Hall, Baton Rouge, Louisiana, copies of which will be furnished by the City Auditor upon application.

Proposals will be opened by the Mayor of the City of Baton Rouge in the presence of the Commission Council between the hours of 12 o'clock noon and 1 o'clock P. M., Tuesday December 20th, 1921.

Proposals must be addressed to the Mayor of the City of Baton Rouge and marked "PROPOSALS for lighting the City of Baton Rouge." Said proposals to be accompanied by certified check for ONE THOUSAND DOLLARS (\$1,000.00) payable to the Commissioner of Finance of the City of Baton Rouge.

The Commission Council reserves the right to reject all bids or any portion of any bid.
W. P. BURDEN,
City Auditor.

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MINERAL AND TIMBER LANDS WATER POWERS MISCELLANEOUS PROPERTIES

FOR SALE—84 acres with large stone bluff, on C. & O. Ry. Stone suitable for building, ballast or concrete. Convenient location for quarry. Fifty acres young timber. Box H. Irwin, Va.

FOR SALE—239 acres proven gold and platinum dirt, five to fifty dollars per ton, placer and quartz mining. Price \$30,000. O. M. Alexander, Anniston, Alabama.

SILICA

WE HAVE, in South Texas, practically unlimited supply of fine grade Silica which Government Chemist advises is best grade in United States. Wonderful base for manufacture of metal polishes tooth paste, nail polish, mechanics soap, etc. Will sell as whole or on contract. G. A. Gandre, 321 Union Station, Houston, Texas.

STONE QUARRY

FOR SALE OR LEASE—One of the oldest Quarries in Texas. Unlimited amount of Fine Building Stone. Has always been a Money Maker. Owner has to retire on account of ill health. Will not require large capital. Address, G. T. Allen, Leander, Texas.

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Rate 20 cents per line per insertion. Minimum space accepted, four lines. In estimating the cost, allow seven words of ordinary length to a line. When the advertisement contains a number of long words, proper allowance should be made. Terms: Invariably cash with order; check, post-office or express order or stamps accepted. No display type used. Questionable or undesirable advertisements will not be accepted. The assistance of our readers in excluding undesirable advertisements is requested. We reserve the right to refuse any advertisement. No patent medicine, oil or mining stock advertisements accepted. Rate for special contracts covering space used as desired within one year as follows: 100 lines, 25c. per line; 300 lines, 25c. per line; 500 lines or more 25c. per line.

COAL LANDS AND MINES

FOR SALE—2500 acres unimproved coal land in tracts, \$35 per acre; has several seams; top drift; adjacent railroad, mines, gas and oil. Write Cavanagh, McAlester, Okla.

COAL

AVOID COAL shortage and high prices later. Buy coal from us now and save money. Can furnish smokeless, splint, gas, by-product for your plant, home or retail yard. Write or wire for prices. MOORE & HETZEL, Charleston, W. Va.

OIL AND GAS LANDS

KENTUCKY OIL PROPERTY.

now producing, capable of expansion to 150 barrels of oil per day, settled production, for sale account sickness of owner. The property is on Pipe Line, has gas and water for complete development, four wells finished, fifth started, contains 66 acres in Magoffin County, Ky. Will net 50% annually. Price \$65,000.00. Details, and shown by request to undersigned. P.O. Box 274, Lexington, Ky.

FOR EXCHANGE

FARM AND TIMBER LAND

20,800 acres in one solid body. Located in the rich Mississippi Delta (St. Francis Basin), highest type of black alluvial soil with just enough sand to make cultivation easy. 3,400 acres in a high state of cultivation, with good residences, 150 tenant houses, modern cotton gin, saw mill, store building with large stock of merchandise. Hotel furnished, light plant, ice factory, 150 head of mules and horses. All kinds of tools implements and machinery from wrenches to locomotives. Has 60,000,000 feet of hardwood timber. Price for everything \$1,248,000. Will exchange this for income property located in any good northern or eastern city. Can make you a good trade.

H. D. PERCIFULL
MEMPHIS REALTY COMPANY
149 MADISON AVE.
MEMPHIS, TENNESSEE.

COAL AND TIMBER LAND

FOR SALE—80,000 acres Coal and Timber Land, Tennessee. Railroad. High grade coal. Good timber, \$7 per acre. P. D. Armstrong, Alton, Ill.

CUT OVER LAND WANTED

WANTED—5000 to 30,000 acres cut-over land. Suitable for farm colony. Owners only. Address No. 5914 care Manufacturers Record, Balto., Md.

TIMBER LAND

14,938 ACRES in fee on Apalachicola River in Florida. Thirty-five million feet Cypress Oak, Ash and Gum. Price \$7.00 per acre. Terms to responsible parties.

Thirty Million feet high grade Cypress, Poplar, Oak, Ash, Gum and Pine on Flint River in Georgia unlimited amount can be added direct from owners at a low price. Best mill location in State. Price \$75,000.00 on terms. Reason for selling have ten years cut for our mills other than these tracts.

REYNOLDS BROS. LUMBER COMPANY
ALBANY, GA.

HARDWOOD TIMBER LANDS offered for 60 days at about half price. Urgent necessity compels this sacrifice. I own 14,500 acres in two boundaries and am compelled to sell this property before Jan. 1st, 1922. Address No. 5905, care Manufacturers Record, Baltimore, Md.

BIG TIMBER TRACT FOR SALE

We have 40,000 acres fine timber, mostly oak, cypress, gum hickory and ash. Cruisers estimate over 291 million feet. More than half oak. Railroad through land and a river on border. Very attractive price for quick sale.

MEMPHIS REALTY CO. "REALTORS"
149 MADISON AVENUE.
MEMPHIS, TENN.

VIRGIN HARDWOOD TIMBER AND LAND FOR SALE

60,000 acres Southern hardwood timber; 5000 feet per acre; two railroads and river through land; level black lime soil, good drainage; price, \$10 per acre; one-fourth cash. Write for full description. Leavitt Land Co., Indianapolis, Ind.

CHEAP TIMBER LANDS.

We have timber lands, well located. At prices cheaper than pre-war prices. One especially attractive tract for Mine-pros or keg staves. 575 acres all in growing timber. GOOD INVESTMENT PROPOSITIONS.
BATTE & BROWDER,
Jarratt, Va.

TIMBER OPERATIONS

FOR SALE—Lumber milling proposition, complete equipment, now in operation, Eastern Carolina; 25,000,000 feet timber; plenty more available; big bargain; \$175,000, half cash, balance terms. Address No. 5700 care Manufacturers Record, Balto., Md.

FOR SALE GEORGIA SHORT LEAF PINE.

40 million feet exceptionally fine grade short leaf roofer timber three portable saw mills 30 thousand capacity planing mills and all necessary logging equipments good organization now running full capacity with over one million feet dry roofers on hand ready for immediate shipment. Located near two main line Railroads. 20 to 30 million feet more timber can be secured near by undoubtedly the best roofer proposition in Georgia. A very attractive price for quick sale or would sell one half interest to acceptable purchaser. P. O. Box 604 Macon, Ga.

FOR SALE—A large tract of virgin spruce forest, spruce suitable for airplane, balsam, buckeye and soft maple, within 8 miles of standard gauge R. R. James A. Maher, Kingsport, Tenn.

FOR SALE—Seventy five million feet very fine hardwood timber mostly cypress. A bargain for quick sale. W. T. Byrd, Baton Rouge, La.

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TIMBER FOR SALE.

From twenty to one hundred and fifty million feet, in separate tracts, of pine and of hardwood. Deal direct with owner. J. W. Barnes, Savannah, Ga.

We own over one billion feet of pine and Douglas Fir in Douglas County, Ore., that we are offering at a very low price for immediate sale. Neenah Oregon Land Co., 615 Metropolitan Bank Bldg., Minneapolis, Minn.

TIMBER FOR SALE

200,000,000 feet virgin yellow pine.
Maurer & Company,
Orlando, Florida.

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FOR SALE

97 acres adjoining the City of Roanoke. Best lot sub-division; big money-maker; good terms act quick. Address No. 5876 care Manufacturers Record.

FARM, FRUIT AND TRUCK LANDS

FLORIDA

TREASURE ISLAND

FOR SALE
The most unique place in Florida. Practically frost proof. Over five hundred citrus trees in grove form, some bearing. Ideal place for growing winter vegetables. Best bass fishing. One bungalow, three cottages, two deep flowing, four inch wells. An exceptional spot for private home, colony or hotel. Send for circular. E. H. Mote, Owner, Leesburg, Florida.

FOR SALE—Any one interested in a 50 acre Orange Grove in full bearing, situated on one of the largest and most beautiful Lakes in Florida—2½ miles from a progressive town, please communicate with the owners for terms. Must be seen to be appreciated. Lock Box 71 Leesburg, Fla.

FLORIDA LANDS

FOR SALE—5000 acres high class grove and trucking land, \$10. acre. Artesian well. All kinds lands, timber tracts, groves, etc. Maurer & Company, Orlando, Florida.

FOR SALE—I can sell you sugar lands, orange and grape-fruit groves, truck and farm lands improved and unimproved, city-resort lots, winter homes up to \$100,000; thousands of acres of cut-over lands. Write Sadler, Nurseryman, Box 866, West Palm Beach, Fla.

10,800 ACRES OF FERTILE FLORIDA LAND FOR SALE

Tract 15 miles from Truck-growing community where crops valued at \$1000 and more per acre are grown. Property fenced, flowing wells. Three miles to railroad. Low price and reasonable terms. For full particulars address

THE PUTMAN COMPANY

Daytona Beach, Fla.
Orange Winter Rentals Farms
Groves Development properties

FLORIDA LAND—A big pick up 15,000 acres cut-over land only \$4 an acre, if interested and mean business communicate with Jno. W. Pelot, Arcadia, Florida.

COME TO FLORIDA—Where "it's summertime in the wintertime and pleasant all the year 'round." We have a home, grove or truck farm for you; send for new booklet with general information about Tampa and Florida, and list of properties we have for sale. Tampa-West Coast Realty Co., (Inc.), Opp. Post Office "Since before the War", Tampa, Florida.

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FRUIT FARM in Kentucky's famous apple county, Henderson; 400 apple trees, 7 years old; new 8-room brick bungalow. W. H. Fitzhugh, Spottsville, Ky., R. R. No. 1.

FARM FRUIT, AND TRUCK LANDS

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FOR SALE—109 acres of Red river land, all in cultivation, with 20 acres already sown in alfalfa; situated both on trunk line railroad and gravelled highway, with railroad station and side tracks; only twenty-five minutes drive from Alexandria, a city of 20,000 people; splendid improvements; land suitable for corn, cotton, alfalfa and other crops; good site for store and dairy; unusual opportunity for man with the grit, energy and determination to succeed. See or write G. C. Boyd or J. W. Hawthorn, owners, 312 Guaranty Bank Building, Alexandria, La.

OHIO

FOR SALE, fine fruit farm of 78 acres; 1800 trees, good house, cellar, barn and garage; ten ml. of Ironton, on hard road. Price, \$6000. Also 100-acre fruit place; 8-room house, barn, cellar and well-fenced, 2500 fruit trees; 7½ miles of Huntington; good road. Price, \$10,000; \$3000 cash, balance terms. See or write

BUNN & COPESS,
310 Center Street, Ironton, O.

SOUTH CAROLINA

Beautiful plantation, river frontage, 1200 acres, fertile productive and highly improved. Splendid quail shooting, duck shooting and fishing. Rare opportunity. Address owner, George McCormick, Georgetown, S. C.

VIRGINIA

NOTICE

Owing to an accumulation of other business I offer for sale 2 nice water front farms, containing 150 acres each 2 settlements on each farm with about 80 acres of clear land balance in woods and timber that is especially adapted to the growth of Irish and sweet potatoes. One of these farms sold for \$12,000 last year in trucks, say nothing of the crop of corn. There are several nice oyster beds and clam beds, fish, wild ducks and wild geese right at the door in abundance. This property is located within 2 miles of Belle Haven Sta., Va. Shall be glad to meet people who are interested at Painter Sta. and show them the property. Also have one hunting, shooting and fishing lodge with a beautiful water front, private docks, 20 acres land. Duck shooting is very good right now. Apply to James W. Downing, Mappsburg, Va.

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A company owning manufacturing plant, consisting of building 80x150, equipped with several motors, also wood and iron working tools and 100 HP. Hydro-Electric Power plant, located on Southern Railway in Piedmont section of North Carolina wants to communicate with party or parties with some capital and having some line to manufacture that would sell readily on present market. This would be a fine location for Knitting Mill. The company owns several nice cottages and additional land for expansion. Labor plentiful and reasonable in price. Address No. 5918 care Manufacturers Record, Baltimore, Md.

Account illness will sell or trade for income property equity in Central Illinois shale building tile plant. C. G. McIntosh, Carlinville, Ill.

I WILL SELL YOUR PROPERTY without publicity, (or finance industrial propositions) by way of special opportunities afforded me in other financial transactions with the greatest investors and financiers. This applies only to large bona fide business propositions; and must be put exclusively in my hands directly by the owner. It includes cotton mills and other going industries; large timber tracts in fee simple; real mining acreage; water power; large blocks of industrial or bank stocks; and whole issues of Municipal bonds. All correspondence absolutely confidential, and the entire transaction conducted in the same manner. Address Bruce Craven, Attorney, Trinity, North Carolina.

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Write Chamber of Commerce.

BUSINESS OPPORTUNITIES

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FOR SALE—Lumber Milling Proposition, 5,000 acres in fee, complete equipment, now in operation. West Virginia. 15,000,000 feet of timber, 500,000 feet now on stick. This property will be sold at a bargain. Address Jno. C. Chidester, Weston, West Virginia.

BANK & LANDS—Controlling interest in going Natl bank, minor interest in 6 nearby banks, owners beautiful residence. Will include several fine farms. Address J. L. McKamey, Imboden, Lawrence Co., Ark.

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WANTED—A good-sized block of high-grade stock of exceptional earning possibilities to market among our large clientele. Money must be for expansion. Wiers & Co., 115 Broadway, New York Established 1894.

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SALE OF HOSIERY MILLS.

To be sold at public auction November 22, 1921 at 1 o'clock P. M. in Hagerstown, Maryland, the buildings, machinery and equipment of the Blue Ridge Knitting Mills, being a large four story building about 40x240 feet, equipped with Power Plant and Dyeing Department. The machinery consists of knitters, loopers, ribbers, motors, shafting, pulleys, etc.

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Only one in this country which is the center of a large cotton mill industry. Originally cost \$75,000. Machine shop and foundry in separate brick buildings. The lot has a frontage of 200 feet, is near railroad tracks and contains stock room and garage with considerable space for automobile storage, etc. Has good line of business at present. Fine opportunity for a machinist with a little capital to organize a stock company. Address 5917 care Manufacturers Record, Balto., Md.

FOR SALE—One 20 thousand capacity sawmill in good running order, consisting of one 50 H. P. return tubular boiler, one 40 H. P. engine, one 20 H. P. engine, one cut-off saw, one edger, all in good shape; belts and saws of all kinds. This mill will cut 20 thousand feet every day, and it is located in the edge of one thousand acres of fine long leaf yellow pine timber that will be on the market this fall. This is a fine location. I will sell this mill for Three Thousand Dollars for a quick sale. E. L. Shadrick, Stillmore, Ga.

FOR SALE—Planing and re-milling plant. In yellow pine district on Atlantic seaboard. Capacity 80,000 feet per day. Enjoying annual retail business of \$400,000 in one of South's largest cities. An old established enterprise which owner desires to sell and retire. Address No. 5913 care Manufacturers Record, Balto., Md.

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FOR SALE—Sand Plant. In first class working condition. Economical to operate. Two men operate it. Dredge boat used on river with pump. On top stiff leg Derrick, one yard clam shell dipper, conveyor belt for loading cars. Big trade territory to cover. Cheap Gas and motor power for fuel. Price \$10,000—Easy terms. Apply to Burke Andrus Sand Co., Ft. Smith, Ark.

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SOUTHERN COTTON MILLS.

We have for sale two cotton mills.

One of 40,000 spindles.

One of 4200 spindles.

Write or wire for particulars

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Trust Building, Charlotte.

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UNUSUAL OPPORTUNITY—Complete tight barrel heading plant in good condition located in Louisiana town of forty thousand—plenty cheap timber—will sell liberal terms to right parties—For sale and owned by a bank able to finance proposition. Address No. 5889, care Manufacturers Record, Balto., Md.

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CIRCULARS WITH A PUNCH.
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BETTER PRINTING for less money. Printing users send for free samples and standardized prices of a thousand items. E. Fantus Co., Printers 523 S. Dearborn St., Chicago, Ill.

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You will have the finest kind of cooperation from the citizens, city and county officials if you should determine to locate your branch factory at Hattiesburg, the HUB of South Mississippi.
Get in touch with the Chamber of Commerce immediately.

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SPOT CASH for surplus merchandise job lots, close-outs, discontinued lines, goods—ordered-and-left-on-hand, etc. (no machinery). No quantity too large. Quick cash for real bargains. Fantus Bros., 529 S. Dearborn, Chicago, Ill.

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SITUATIONS OPEN—If you are seeking a managerial, professional, technical or semi-executive connection and your ability warrants your commanding annual remuneration in the amount of \$2500 to \$25,000, we invite your correspondence. Inquiry considered confidential. Address:

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Business Survey Corporation,
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MEN WANTED

WANTED—High class salesman to sell lumber, timbers, piling, ties etc. to the railroads and mines of United States. Must have necessary experience and good papers. Concern is, old well rated company with headquarters in Texas and operating in East Texas and Louisiana. Send papers first letter and state salary desired. No. 5912 care Manufacturers Record, Balto., Md.

IF ACTUALLY QUALIFIED for salary between \$2500 and \$25,000, communicate with undersigned, who will negotiate strictly confidential preliminaries for such position; executive, administrative, technical, professional; all lines. Not an employment agency. Undersigned acts in direct confidential capacity, not jeopardizing present connections. Established in 1910. Send name and address only for explanatory details. R. W. Bixby, Inc., 303 Lockwood Bldg., Buffalo, New York.

SALESMAN—One who is calling on power plants in any part of Pennsylvania, New Jersey, Delaware, Maryland to sell on commission as side line high grade article that is needed and wanted by every power plant. Address No. 5880 care Manufacturers Record, Baltimore, Md.

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Defiance Variety Lathe—Factory price for this 32 inch machine is \$1315, my price for it new only \$500. Oliver Carter, Surplus Stock Mover, Wilmington, N. C.

MACHINERY AND SUPPLIES

3 FORNEY type Davenport Locomotives Standard gauge Cylinder 10x16 and 11x16. Slide valves. Weight about 20 and 22 tons. S. T. Alcus & Co., Ltd., New Orleans, La.

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One second hand Crude oil Marine Engine, 60 to 75 h. p. Must be in first class condition and cheap.

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40 Twilumph	250	300	9x12 Skinner
75 Triumph	250	100	16x36 Murray Cor.
100 Allis	250	...	15x14 Ames
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- 1-500 kw. G. E., same as above, 375 r.p.m.
- 2-1250 kva. G. E. 3-ph., 25-cy., 6600 volts, 375 r. p. m. motor type ATI to AC generator AQB, 5400/3700 volts, now 3-ph., reconnectable for 3-ph., 2300 volts, 62 1/2-cy., no exciter. Located near New York.
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- 2—65 Ft. 30" Diam. No. 7 Gauge Guyed

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MOTORS

440 volt, 3 phase, 60 cycle

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- 1—50 H. P. " " Speed 1160
- 2—40 H. P. " " Speed 1160
- 1—40 H. P. " " Speed 865
- 2—30 H. P. " " Speed 1150
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- 1—9 1/2 H. P. " " " " " "

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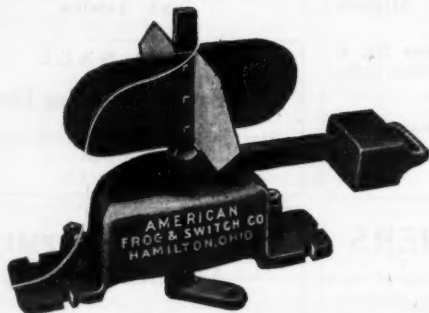
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REBUILT LOCOMOTIVES: All types and sizes—a large stock to select from.

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NEW STEEL RAILS, STEEL TIES

12 lbs. to 60 lbs. per yard
Concrete Bars, Rounds, Squares, and Twisted Squares
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IT WILL PAY YOU TO GET OUR
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**ROCHELLE, ILLINOIS
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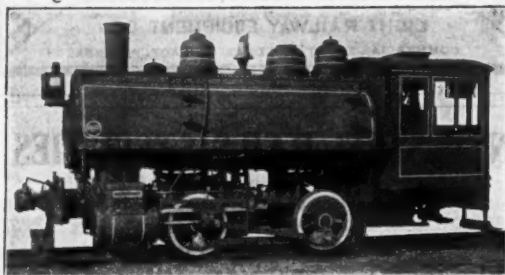
GEAR AND FRICTION DRIVEN
GASOLINE LOCOMOTIVES—2½
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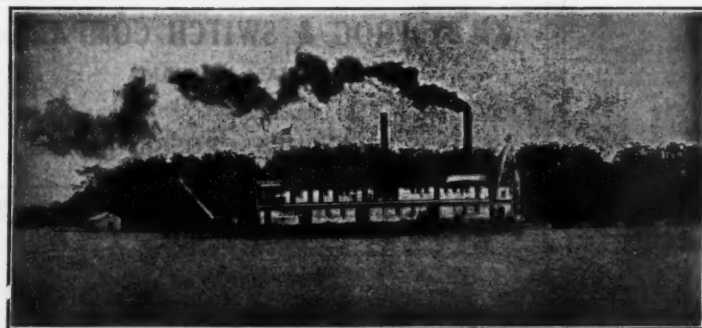
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We are especially equipped to ex-
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Scanlan Bldg.

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Suggestion to Borough Councils:—Why not charge for seats, and help to lessen the rates.—(Copyright London Punch.)

There's plenty of action to interest engineers, contractors and taxpayers when you put a Sullivan "WK-31" Portable Compressor and Rotator Drills to work on a road or street job. And you can be sure of lessening your rock drilling or pavement cutting costs, whether you charge for seats or not.

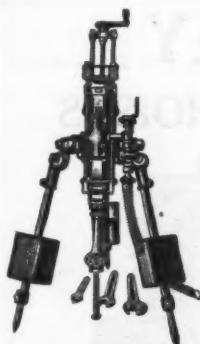
"WK-31" Compressors supply 150 cu. ft. air at 100 lbs. and use 28 H. P. Direct Connected to a reliable gasoline engine.

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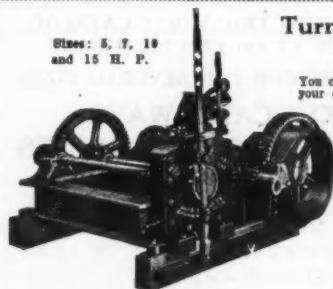
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A tripod drill made to be handled by one man. The lightest drill made. Weighs only 83 lbs. unmounted. Drills holes to 7 ft.

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Hammer Drills and Piston Drills



Sizes: 5, 7, 10
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Turn Waste Minutes Into Money

You can save time, labor and fuel on your derrick work by installing

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One lever starts, stops and reverses it, and when the throttle is closed the brake is automatically applied to the drum.

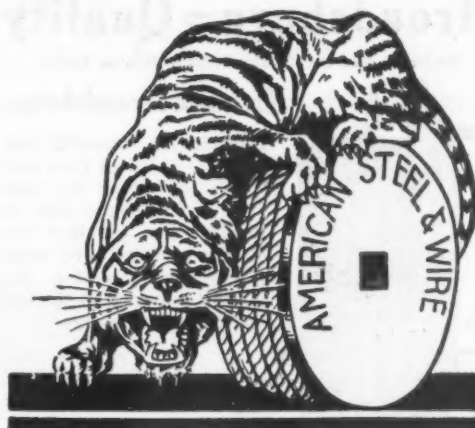
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Swinging the boom without the use of the main hoisting engine saves fuel.

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We Standardized the 125 Lbs. Pressure Hoisting Engine

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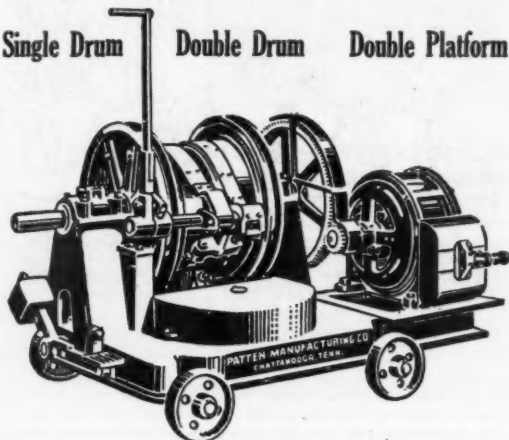
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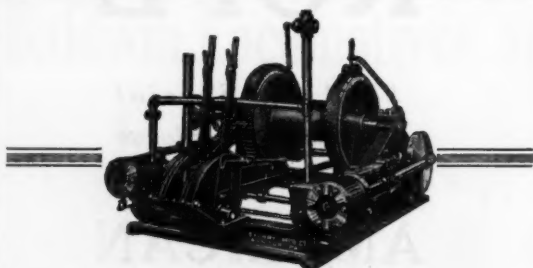
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For Hoisting or Hauling by Steam

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Write for the Flory catalog which contains complete information regarding our line of steam and electric hoists, cableways, derrick fittings, etc.

"A Flory Hoist For Every Purpose"

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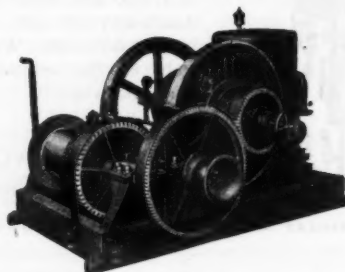
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GASOLINE HOISTS



SEE PAGE 12 OF ELECTRIC HOIST CATALOG
10 H. P. 1750 LBS. AT 150 FT. PER MINUTE
THESE HOISTS ARE BUILT IN SEVERAL SIZES

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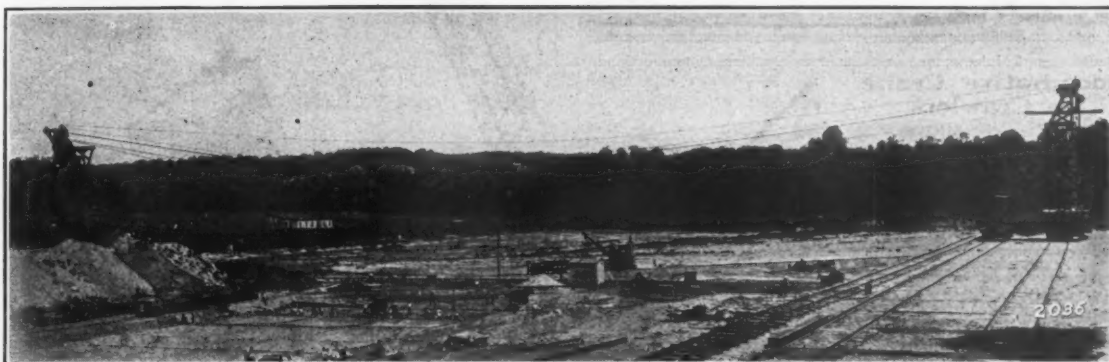
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Lidgerwood Cableway in use by the City of Worcester constructing sewer disposal plant.

This cableway was used for the excavation of rock and earth, and the placing of forms, laying the concrete and all other material used in the construction of sewer disposal plant.

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Dirt-Movers Use the Dragline Cableway Method of Digging and Moving Materials



The ability of the Sauerman Dragline Cableway Excavator to dig from either above or below water, and to elevate and convey the material from pit to plant without the help of auxiliary machinery, has made it standard equipment for commercial gravel-handling operations. This same ability makes our type of equipment correspondingly economical and efficient for other propositions where material has to be excavated and moved over distances from 100 to 800 feet or more.

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BYERS Model "10" Full Circle Crane

OPERATOR can raise or lower the boom under absolute control while lifting or dropping bucket, rotating, or traveling. Exclusive Byers feature; many other points just as important—study them all in interesting Bulletin, just out.

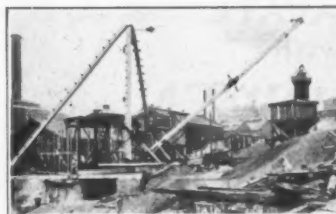
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Builders of the highest type



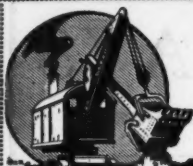
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Revolving and Railroad Type Steam Shovels
34-6 cu. yd.

Clamshell and Drag line outfits, Railroad Ditchers,
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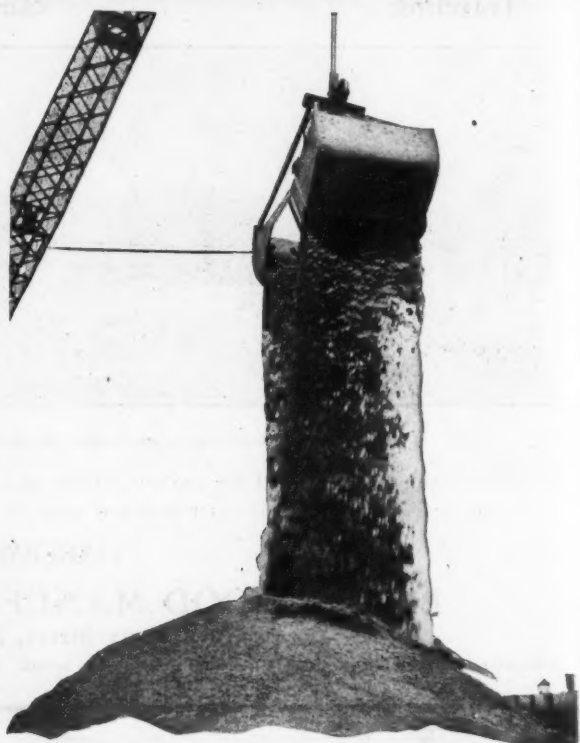
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BUCKETS**

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Quick Action—and it Pays.

Watch the swift, smooth, well-directed dump of a Hayward Clam Shell Bucket.

Then on pile, in car, barge, or excavation, watch the powerful bite of sturdy jaws that penetrate with a quick, sure motion that almost buries the power-wheel with a big, over-capacity load.

There's a snap and efficiency in Hayward Bucket action that engineers and contractors the world over appreciate when it's a question of making a job more than just pay.

Catalog 43 describes all the Hayward paying qualities. Write for it.

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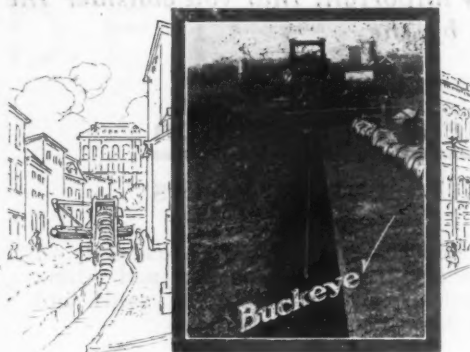
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Drag Scraper
Electric Motor

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2758-Y



When You're in a Tight Place

Such as an alley, the Buckeye—even the large C-20—operates with ease.

The conveyor is instantly shifted to right or left by a simple mechanism at the operator's platform. Change of cutting widths is easily and quickly made. There is no trouble in starting. Low height allows operations under ordinary overhead obstructions, such as trolley wires, bridges, etc. Cutting widths of 40", 44", 48", and 52"—digs any depth to 20'.

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Manufacturers of Trench Excavators (both Wheel and Chain-and-Bucket Types), Concrete Breakers, Pipe Line Trench Excavators, Tile and Open Ditchers, Back-Fillers, Pipe Screwing Machines, Curb Diggers and Clay Diggers.

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Clinchfield Service Means Complete Co-operation With Dealers, Contractors and All Cement Users

The sales field of Clinchfield Portland Cement is confined exclusively to the South. Every thought of the manufacturing, technical and selling forces of the company is devoted solely to studying the needs and requirements of cement users and dealers in the South.

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Back of this service stands the Clinchfield Portland Cement Corporation with a thoroughly modern plant and a corps of trained men of wide experience in the manufacture and sale of cement.



*Place your next order for Clinchfield. You
will be pleased with Clinchfield service.*

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Office and Mills: KINGSPORT, TENN.

National Cement Company

Manufacturers of

High Grade Portland Cement



Output 50,000 barrels
monthly. No old
contracts on our books,
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Southern States Portland Cement



We produce only one grade

THE HIGHEST

ALWAYS UNIFORM

Southern States Portland Cement Co.

Office and Mills—ROCKMART, GA.

CONCRETE



PERMANENT

MR. TAX-PAYER—YOU!

Do you want your county to
spend YOUR good money on roads
that will wear out before your
bonded indebtedness is liquidated?

I SAY YOU DON'T.

What you want is a hard-surfaced
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in rain or snow, summer and win-
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road—that means **CONCRETE!**

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The services of our Technical Department are always at your disposal on any question of concrete or stucco.

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ATLAS CEMENT

That Old Road Has a Cash Value. Why Destroy It?

Thousands of miles of good old macadam and gravel road are unable to carry today's load without excessive maintenance. Years of traffic, however, has so compacted the metal and sub-grade of these roads until today, no amount of money could duplicate them as a base for a hard surface.

Why plow up these old roads to make room for new costly construction? They have actual cash value, equal, at least, to the cost of excavating in the old road by using it as a base. Surely this is good engineering, good common sense and economy.

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Where the old highway has sufficient metal to serve as a base, it can be successfully surfaced with Kentucky Rock Asphalt at a minimum cost. If the road is macadam, the rock asphalt may be spread on the old surface after it has been properly shaped. If the road is gravel, a thin course of crushed stone is necessary to afford a binder for the asphalt. In either case, the simplicity of the construction effects a great saving over other high types.

Kentucky Rock Asphalt is equally successful as a surface for old brick, and concrete roads, and just as easy to apply.

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The simplicity of laying Kentucky Rock Asphalt means a material saving of several thousand dollars a mile where the old road is used as a base.

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Superior quality approved by Federal Highway authorities for highway construction.

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Best for All Purposes

We manufacture all sizes of stone suitable for all classes of road building and concrete work where only a high-grade limestone is required.

Quarries opened up in 1912.

Capacity 4000 tons daily

Quarries:

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Consider this saving before you buy a truck loader

The Haiss Loader is a *one man loader*—no shovelers or trimmers needed.

On a 5 yard truck—8 trips-a-day basis, prices 1921 New York—it will save you nearly \$40.00 a day over hand labor.

And it will load faster and more efficiently than the average loader. Let us tell you about Haiss Truck Loaders in detail. Ask us now.

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Representatives throughout the world



ERIE Shovel owned by Bent Bros., of Los Angeles, Cal., digging a 7-mile trench at Oklahoma City, Okla.

**"Could not
be better
for trench
excavation"**

"We have used many shovels, but like the ERIE best. It couldn't be better for trench excavation. It is on the job all the time, turning out a good big yardage."

"We have found the ERIE a mighty satisfactory investment, not only for trench excavation, but also for road grading and rock work."—Arthur S. Bent, Bent Bros., Los Angeles, Calif.

The ERIE is unequalled for trench excavation. Large boulders do not stop it. Digs through hard shale. And after a trench cut, the ERIE Shovel is ready for street grading, cellar digging—any kind of excavation work. Or it handles a clamshell bucket.

We will be glad to send you a bulletin showing just what the ERIE can do. Write for a copy of Bulletin R. Address:

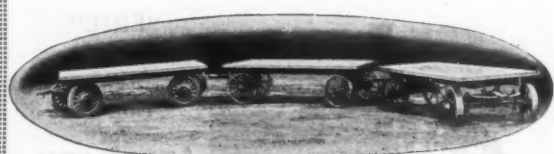
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ERIE Shovels,
Cranes,
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For trench and cellar digging; road grading and crane service (with steel boom).



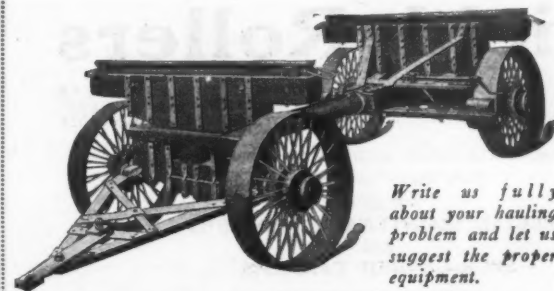
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about your hauling
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suggest the proper
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STEAM JACKETED PUMP

The Standard of efficiency for pumping Heavy Crude Oils, Asphalts, Tars and all heavy viscous or bituminous products.

No Springs

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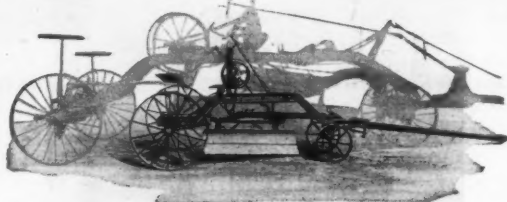
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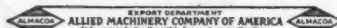
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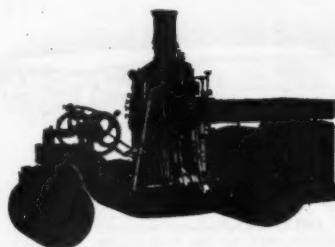
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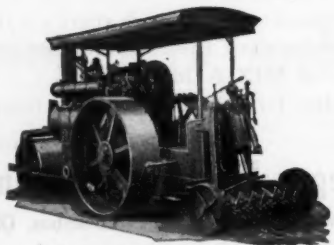
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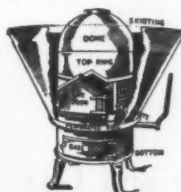
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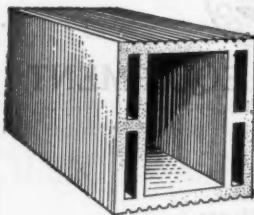
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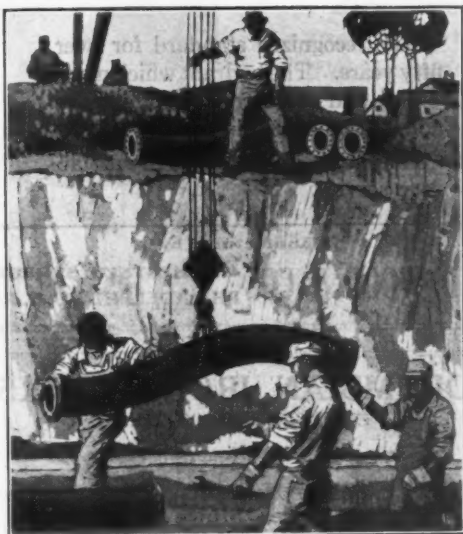
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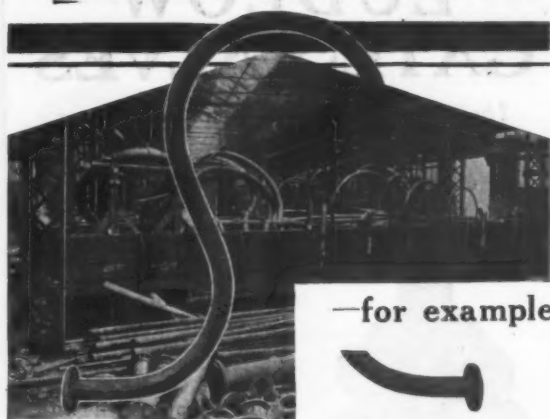
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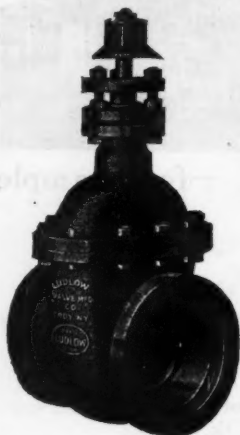
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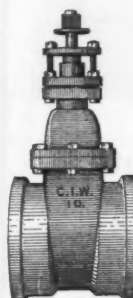
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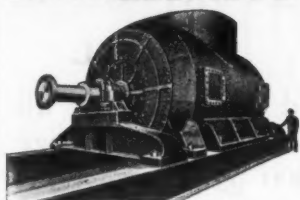
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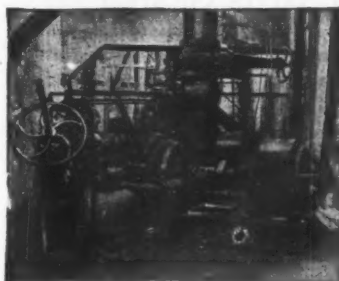
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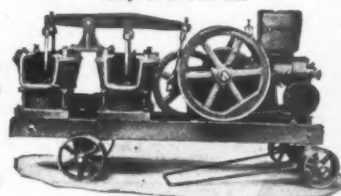
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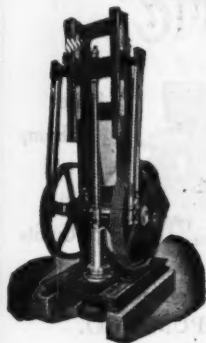
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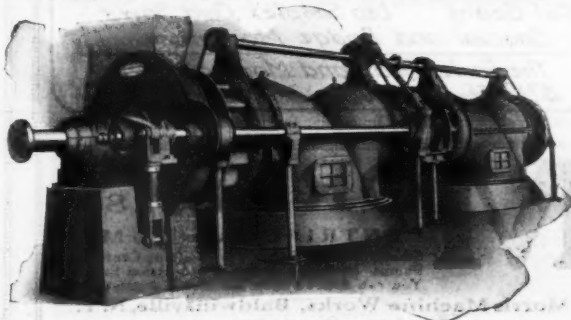
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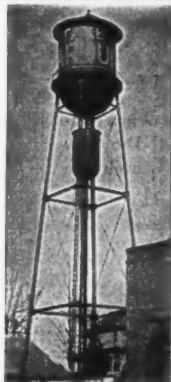
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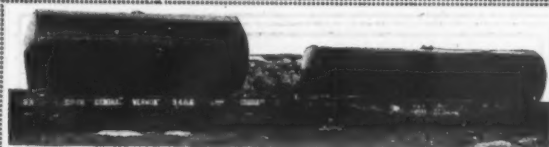
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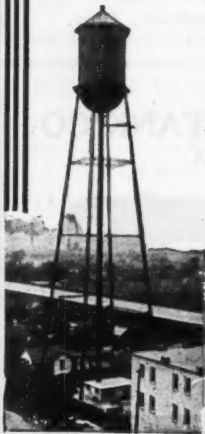
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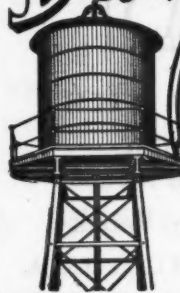
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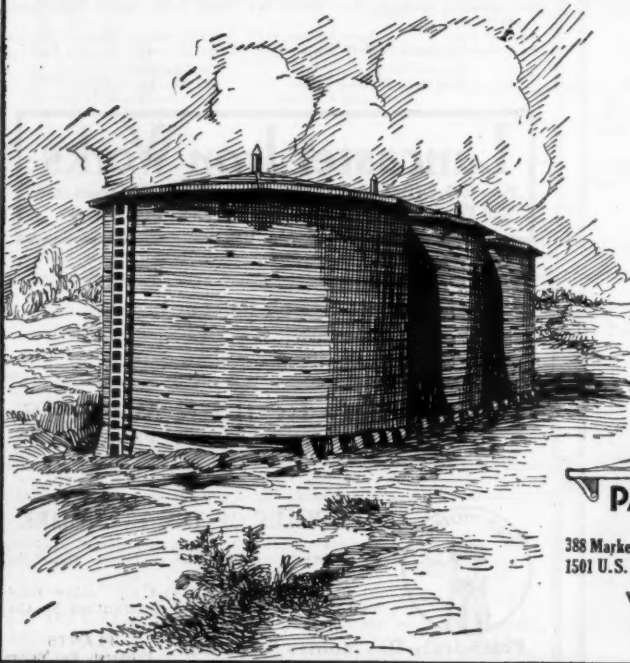
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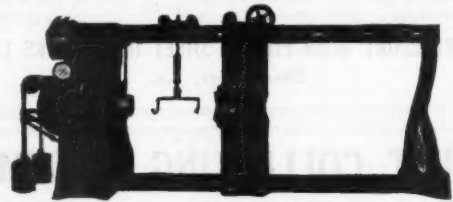
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Oil.

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After nine years' continuous service the Rex Chain on this coal-loader owned by the New Brunswick Ice Company is still in good condition.

Nine years' hard service— yet this Rex Chain is still fit

The New Brunswick Ice Company, a big coal and ice concern in New Brunswick, N. J., has been using a portable coal loading machine for more than nine years. It handles from 20 to 30 tons a day and is seldom idle.

And it is still running on the same Rex Chain with which it was originally equipped!

Mr. E. A. Brady, one of the company officials, says, "We have replaced only one link since the loader came here and that one was broken through carelessness on our part. The chain is still in good shape. We expect it to run quite a while longer."

This record of nine years' continuous service amid coal-yard dust and grime is but another proof of the greater strength and endurance, the lower cost of Rex Chain.

In many different industries, both on conveyors and power drives, Rex Chain is showing substantial savings over ordinary sprocket chain. It not only lasts longer but helps guarantee uninterrupted, economical production. It will serve you as profitably.

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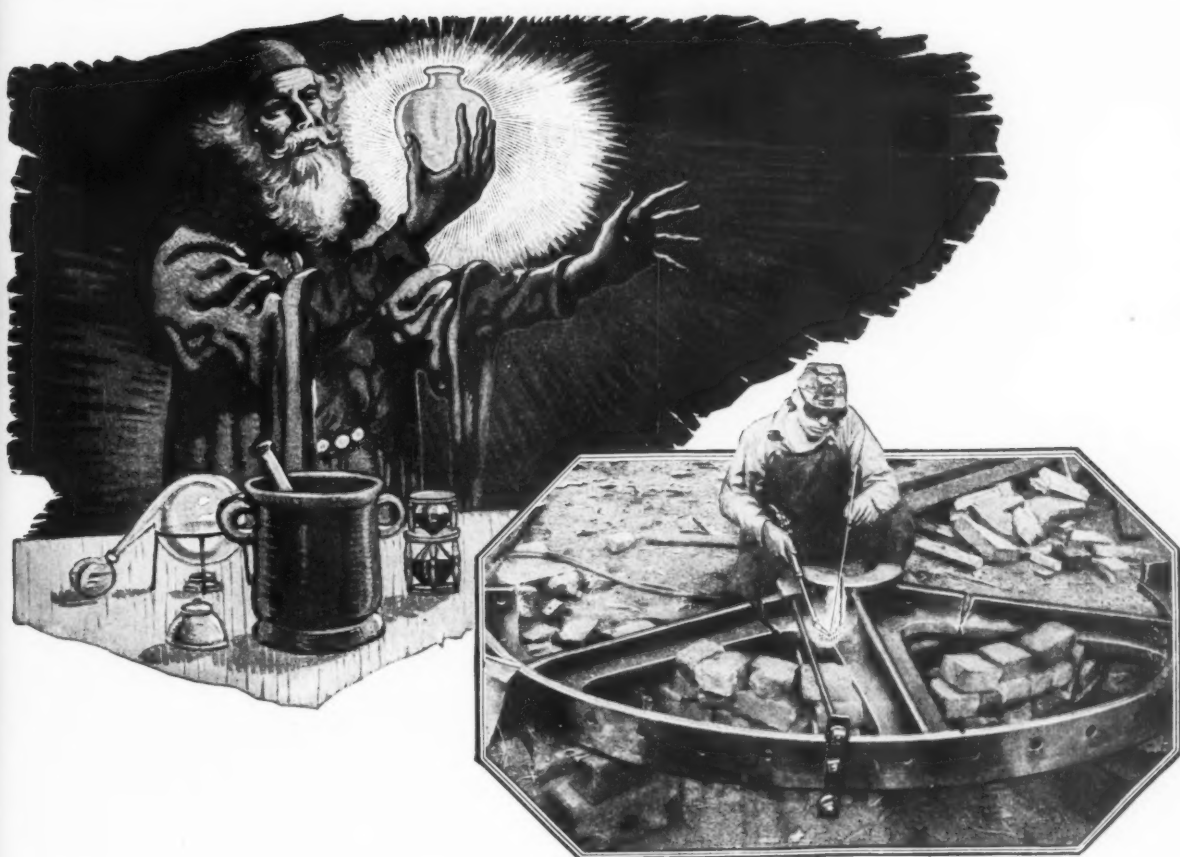
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You can secure standard Rex Sprocket Chain of any style, either from distributors or direct, for every conveyor and transmission need



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The age-old dream of the alchemist is realized because of Linde

THROUGH countless centuries man dreamed of transmuting the baser metals into gold. Patiently, laboriously, often consecrating their very lives to the work, the Alchemists of old toiled on toward their elusive goal.

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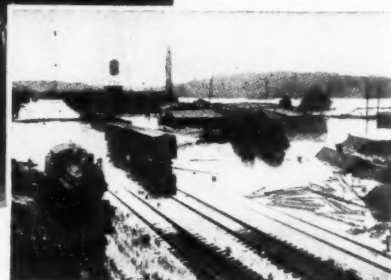
Dramatized Facts out of The Day's Work

NO. 9



MAYOR CITY ENGINEER

SUPERINTENDENT OF WATERWORKS

CONSULTING
ENGINEER

Where the facts came from

The great Carolina Flood of 1916 wrought havoc for 30 miles, leaving towns and factories desolate and helpless. Grinnell Company played an important part in the work of restoration. All consulting engineers realize that in such disasters the Grinnell Company can mobilize its field forces, backed by its factories and engineers, to meet the immediate needs of stricken communities.

Coming!—in the hour of desperate need

The Mayor, haggard from loss of sleep since the dreadful night when the flood broke, eagerly scanned the drawn faces about him for reassurance. "With the Power House swept away, the situation is appalling. I tell you we've got to move faster. The city's industries are without lights, or water, or power. The danger of conflagration is imminent."

"The walls are going up five feet a day—", parried the City Engineer.

"Hang the walls!" snapped the Superintendent of Waterworks. "Think of that piping job! Bends,—welded nozzles—hangers—"

"Wait a minute—" interjected the Consulting Engineer. "I'm here to rush this work through—and I'm doing it. Complete blueprints of the piping job went to Grinnell Company days ago."

"—And just what does that mean?" barked the Superintendent.

"Mean?—It means *service*. Four of their plants—Providence, Warren, Atlanta and North Charlotte—are working together to turn out all the piping we need, in record time."

"—It will be weeks before it gets here—", groaned the Mayor.

"Weeks—nothing!—The pipe's coming *now*. Four cars will arrive tomorrow—and with them enough men to do the erecting. Grinnell Company has a road force of 1300. If the piping job's not complete by the time the roof's on the Power House, I miss my guess."

The Mayor looked his astonishment. "That *will* be service", he said. Then the old frown returned. "The cost—", he wavered. "—I suppose—"

The Consulting Engineer interrupted his forebodings with a reassuring laugh. "Don't worry. When Grinnell does a job, haste means *service*—not *waste*. Grinnell *guarantees* this piping work and in this case does it on a cost plus basis."

For the first time in days, the Mayor smiled. "Cars and men are coming!"—It's the best news I've had!"

GRINNELL GUARANTY

The value of Grinnell Company's Service does not stop at the rapidity with which its large and highly-specialized organization executes difficult jobs. Engineers and architects know that Grinnell Company maintains one of the world's greatest industrial laboratories on piping, and that its road force can be depended upon to do erecting work on a par with the finest engineering. They know the value to business men of a *courageous guaranty behind ideas, men and materials.*

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